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## THE WORK OF THE UNITED STATES PUBLIC HEALTH SERVICE<sup>1</sup>

Personal well-being is so obviously an individual and personal characteristic that it is frequently a little difficult to convince a citizen living on the Pacific coast that his health is affected by the activities of an agency of the Federal Government 3,000 miles away. In fact, save in times of epidemic, the average citizen is likely to take little interest in the activities of his local health officials, to say nothing of those of the State or Nation. When there is an outbreak of some contagious disease in his community, he becomes intensely interested in methods of preventing the spread of the contagion; but when the outbreak has abated this interest wanes, and that is why there is another outbreak at some later date.

"In time of peace, prepare for war," was the advice of one whom the world generally concedes to have been wise. And it is advice which can be adapted profitably to the work of those charged with the protection of that vital but rather nebulous thing called public health. Preparation for war in the political and military sense does not mean merely storing up supplies of arms and munitions such as were used in the last war. If it did, modern nations would be using clubs instead of tanks, and bows and arrows instead of poison gas and heavy artillery. Preparation for war means constant efforts to improve weapons and constant diligence to prevent the outbreak of hostilities; or, if the latter is impossible, then an effort to so localize the outbreaks as to reduce the enemy's potentialities for damage to a minimum.

It is the duty of public health authorities not only to fight epidemics and diseases while they are actually present but to devise means of preventing epidemics and diseases. This is the reasoning back of the elaborate and far-flung system of disease prevention and control which, in the aggregate, is the United States Public Health Service.

In carrying out its duties the Public Health Service employs more than 5,000<sup>2</sup> men and women, and expends appropriations aggregating approximately eleven million dollars annually.

<sup>1</sup> This brief summary of the work of the United State Public Health Service is based in part on a series of short copyrighted articles originally published in the United States Daily. By permission, these articles were later printed in Public Health Reports and issued in reprint form (Reprint No. 1128). In the present article the original series has been largely rewritten and brought up to date.

<sup>2</sup> In addition there are approximately 4,500 State and city health officers employed at a nominal salary by the Federal Government to aid in the collection of morbidity reports and in other ways.

The organization now known as the Bureau of Public Health Service had its origin in the Marine Hospital Service, which was established by an act of Congress approved July 16, 1798. This act authorized the President to nominate and appoint medical officers to furnish care to sick and disabled seamen at such ports and other places in the United States as presented needs for services of this nature. It was provided that this care might be given either in hospitals maintained by the United States or in civilian institutions with which contracts might be negotiated.

A tax of 20 cents per month to be collected by collectors of customs from all seamen employed on American vessels engaged in foreign and coastwise trade was the method prescribed by the early legislators for the financing of their first step in safeguarding the public health. It is for this reason that the Public Health Service is a part of the Treasury Department to-day.

The first marine hospital built under the authority of the act of 1798 was at Norfolk, Va., in 1800. In 1802 a hospital was built at Boston, and others followed both along the Atlantic seaboard and along the Mississippi and Ohio Rivers and the Great Lakes.

Necessarily, in caring for sick and disabled seamen in American ports, the medical officers appointed to serve in these early marine hospitals became familiar with the diseases brought into the country from abroad. It frequently happened that these medical officers were the first physicians to diagnose such diseases as cholera, yellow fever, and smallpox, which threatened the welfare of ports of entry. This was particularly true in southern ports, then exposed to frequent dangers from yellow fever.

During epidemics in the early days the Marine Hospital Service frequently received presidential authorization to aid local health authorities in relief and control measures. The marine hospitals and some of the medical personnel as well were used by both the North and South during the Civil War for the care of the military forces.

Gradually, Congress began to extend the functions of the Marine Hospital Service, and to make of that organization a Federal health service. In 1878 the service was given authority to impose quarantine to prevent the entry of disease into the United States from abroad. It was not until 1890 that authority was given to impose quarantines to prevent interstate spread of disease, and then the authority was limited to the prevention of cholera, yellow fever, smallpox, and plague. In 1893, this authority was extended to cover all infectious and contagious diseases, and provision was made for cooperation with State and municipal health agencies to prevent the introduction and interstate spread of such diseases.

Congress recognized the value of military discipline in an organization which had to combat epidemic diseases, and in 1889 authorized

the organization of the Marine Hospital Service along military lines, with officers holding commissions in grades similar to officers of the medical department of the Army.

In 1902 the name of the organization was changed to "The Public Health and Marine Hospital Service," and in 1912 this name was changed to that now borne by the service.

While the public health functions of the service had their inception in the prevention of the introduction and spread of quarantinable diseases, their development was largely the result of changes in public opinion. Investigative functions began with inquiries into the causes of such diseases as yellow fever and cholera. In 1901 Congress authorized the building of the Hygienic Laboratory for the investigation of infectious and contagious diseases, and in 1912 authorization for such research was extended to include all diseases of man and conditions influencing the propagation and spread thereof. This field of work has proved so important and profitable in results that in 1930 Congress increased the facilities for research, provided for the acceptance of unconditional gifts and bequests for the study of the fundamental problems of disease, authorized the appropriation of \$750,000 for additional buildings and equipment, and changed the name to the National Institute of Health. To-day this institution is recognized as one of the foremost research centers of the world.

The functions of the Service may be summarized as follows:

1. The protection of the United States from the introduction of disease from without.
2. The medical examination and inspection of all arriving aliens and prospective immigrants.
3. The prevention of interstate spread of disease and the suppression of epidemics.
4. Cooperation with State and local health authorities in public health matters.
5. Investigation of the diseases of man.
6. The supervision and control of biologic products.
7. Public health education and dissemination of health information.
8. The maintenance of marine hospitals and relief stations for the care and treatment of certain beneficiaries prescribed by law.
9. The confinement and treatment of persons addicted to the use of habit-forming narcotic drugs who have committed offenses against the United States and of addicts who voluntarily submit themselves for treatment.
10. The providing of medical service in Federal prisons.

One of the functions exercised by the service—that of supervision and control of biological products—is of tremendous importance. It means that all viruses, vaccines, therapeutic serums, toxins, anti-toxins and analogous products applicable to the prevention and cure of diseases of man are tested by the service for purity and potency. The value of such products supervised by the service in one year is well over \$10,000,000.

As organized at present, the Surgeon General administers the affairs of the Bureau of the Public Health Service through eight administrative divisions. These are as follows: The division of scientific research, the division of marine hospitals and relief, the division of foreign and insular quarantine, the division of domestic quarantine, the division of sanitary reports and statistics, the division of venereal disease, the division of mental hygiene, and the division of personnel and accounts.

#### **Division of Scientific Research**

Save for his superior mental capacity, man enjoys no particular advantage over other forms of life in the struggle against disease. Therefore his most important weapon in that struggle is the application of that mentality to methods of promoting his health. The most effective method of that application devised so far is scientific research through the experimental method.

Granted that the necessity for research exists, the question then presents itself as to whether or not the Government should engage in research. Experience and reason both command an affirmative answer.

While it is true that in the United States as elsewhere a large amount of research connected with the safeguarding of public health is carried on by private agencies, there are, nevertheless, compelling reasons why the Government itself should be represented in this field.

A careful analysis will show that by far the greater part of the research work conducted under private agencies is directed to the solution of problems that are almost entirely local or problems pertaining to curative rather than to preventive medicine. On the other hand, the Government, being interested in the welfare of the entire population, concentrates its efforts upon problems affecting large groups and upon preventive rather than curative methods. Occasionally there is an overlapping, as in the case of syphilis, where to cure one case is to prevent another.

The Government also has a duty to perform in checking up on the results of outside research to determine whether or not much of this information can be recommended for general guidance and in formulating scientific information for administrative purposes. Then, too, there are certain problems which no private agency is equipped to solve. These are problems requiring observations widely distributed in a geographic sense and other problems which can be solved only by concentration of many different research activities working in cooperation and simultaneously. In addition to all of these reasons, there is, of course, the Government's obligation to promote the welfare of the people—an obligation which is not shared by outside private agencies, which, properly enough, have their own ends in view in many of their activities.

Recognizing the necessity and propriety of governmental research in the public health field the Congress in the act of August 14, 1912, provided that:

"The Public Health Service may study and investigate the diseases of man and conditions influencing the propagation and spread thereof, including sanitation and sewerage and the pollution, either directly or indirectly, of the navigable streams and lakes of the United States."

An act of Congress in 1901 established the Hygienic Laboratory in Washington, where an important part of the research activities of the division has been carried on. In 1930 the name of the Hygienic Laboratory was changed to the National Institute of Health, and provisions were made for enlarged facilities, the establishments of fellowships, and the acceptance of gifts for study of the fundamental problems relating to the diseases of man.

The scope of the division's activities may be described as follows:

1. The investigative functions have been extended to include every major topic of public health interest. The approaches to the problems have been from several standpoints—(a) of the basic sciences in the laboratory; (b) of clinical study; (c) of epidemiology; (d) of sociology and economics; (e) of vital statistics; (f) of public health administration.

2. The control function (biologic products), authorized by the act of July 1, 1902, has extended to the limitations of the act in so far as permitted by the funds appropriated. It has included researches necessitated by adequate control. The control of biologic products necessitates inspections in many parts of the United States and in a number of European countries.

The activities of this division have carried its agents into every State in the Union, the insular possessions of the United States, Mexico, and several countries of Europe.

In addition to those activities which it carries on independently the division does not hesitate to cooperate with other agencies doing work within its field. In exchange for opportunities for research and access to material the division always stands ready to cooperate with any Government agency in the solution of problems relating to public health, subject to the consideration of relative importance in terms of service to the country and also subject to limitations of funds and personnel. This same readiness applies to nongovernmental organizations with the additional considerations of their aims, purposes, and good faith.

At various times the division has cooperated in research with many public and private agencies, including the Bureau of Mines, the Bureau of Standards, Johns Hopkins University, Yale, Harvard, the National Research Council, many manufacturing and industrial

organizations, and the State boards of health of the various States of the Union.

A topic is considered eligible for investigation by this division provided it is of public-health interest, and if funds and personnel are available, under the following circumstances:

1. The subject is of widespread significance and no adequate solution is at hand.
2. Other agencies are not studying the subject, or at least not from the standpoint of public health.
3. The subject threatens to become of widespread importance, rendering anticipatory research advantageous.

The principal activities of the division at present include the following:

Studies of a number of diseases of man, including cancer, diphtheria, cerebrospinal meningitis, encephalitis, leprosy, malaria, nutritional diseases, pneumonia, Rocky Mountain spotted fever, smallpox, scarlet fever, trachoma, tuberculosis, tularæmia, typhus fever, and undulant fever; investigations on the subjects of administrative health practice, child hygiene, industrial hygiene and sanitation, milk, morbidity, oxidation reduction, stream pollution; and studies and inspections required for the regulation of interstate traffic in biologic products.

#### **Division of Marine Hospitals and Relief**

The marine hospitals were established by Congress in 1798. At that time, the Public Health Service was known as the Marine Hospital Service; the idea of a Federal health department was something entirely outside the ken of political thought in the infant Nation.

From time immemorial it has been the law of the sea that vessels must provide medical attention for seamen. Hence, to encourage the struggling merchant marine, Congress took this means to relieve the ships of this burden.

Thus it came about that some of the earliest institutions established by the Federal Government were marine hospitals, which antedated naval hospitals and, in the early days, took care of officers and men of the Navy. The first marine hospital in Boston, which, incidentally, was the first general hospital in that city, furnished hospital care for wounded who fought under John Paul Jones, as well as for his British prisoners. The present marine hospital in Boston is the third in this port, the first and second having been abandoned in turn as they became obsolete.

The marine hospitals in the beginning were financed through a tax of 20 cents per month, later increased to 40 cents, deducted from the wages of each seaman and collected by the collector of customs. Subsequently this was replaced by a tonnage tax and finally by direct appropriations out of the Treasury. It has been nearly 50 years

since the 40 cents per month tax was collected, but aged sailors still sailing the seas and coming into the hospitals recall that they helped build these institutions out of their own wages.

The earlier hospitals were primitive affairs according to modern standards. Medical knowledge has advanced greatly since 1798, and the marine hospitals have kept abreast of the time. Attending specialists augment the regular staff of medical officers; trained nurses, professional dietitians, and skilled physiotherapy aides are employed. The medical and surgical work of the marine hospitals compares favorably with that of representative hospitals in their respective ports.

There are only 25 marine hospitals, all in the United States, as the policy is to build marine hospitals only where it is less economical to provide hospital care by contract with private hospitals. A building program is under way, and new marine hospitals have recently been completed and occupied at Detroit, Mich., and Cleveland, Ohio. A 500-bed marine hospital is under construction at San Francisco and a 600-bed hospital at New Orleans. This will be the fourth marine hospital in the city of New Orleans, each of the other three having been replaced in turn by a more modern institution. A smaller marine hospital is under construction at Galveston, and funds are available and plans under way for new hospitals in Seattle, Baltimore, and New York City, the latter to be ultimately a 1,000-bed institution.

Approximately 300,000 persons apply annually for treatment at the marine hospitals and out-patient offices, and there are constantly between 3,000 and 4,000 sailors in hospital. During the year ending June 30, 1930, there were furnished 1,547,000 patient hospital days, 871,780 out-patient treatments, and 115,892 physical examinations were made for purposes not related to treatment, including the services rendered to the Civil Service Commission, Pension Bureau, and other Government agencies. There were 1,120 deaths. In the marine hospital laboratories 258,860 bacteriological and other clinical laboratory examinations were made, and 87,605 X-ray exposures were made for diagnostic purposes.

Dental treatment is furnished at all marine hospitals by full-time commissioned dental officers. Most patients entering these hospitals, especially the merchant seamen, are suffering from septic mouth conditions. With the elimination of dental infection by operative or prophylactic measures, some quite remarkable recoveries have been obtained.

The first dental officer was appointed in 1919. Until that time dentistry was not available in marine hospitals. During the last fiscal year 52,763 patients were given 280,722 dental treatments. Included in this number of cases were 312 fractures of the lower jaw.

The marine hospitals are open to personnel of the Army, Navy, and Coast Guard, to patients of the United States Veterans' Bureau, and to injured employees of the United States Government receiving care under the supervision of the Employees' Compensation Commission. The hospital on Ellis Island, New York City, is operated partly for detained sick immigrants. It is also the policy of the Government to allow foreign seamen to enter marine hospitals as pay patients when a request is made on their behalf by the master of a foreign vessel or by a foreign consul.

It costs a little more than \$5,000,000 per year to maintain the marine hospitals. Approximately \$500,000 a year is returned to the Government for the various classes of pay patients, including immigrants. The average cost of operation is slightly more than \$4 per patient per day, which is considerably less than that of civilian hospitals furnishing equivalent services and having trained nurses and salaried staffs of physicians and surgeons.

Starting out merely as an agency doing relief work for seamen, the Public Health Service has expanded and acquired manifold and varied functions. It was natural for quarantine duties to be added, together with other functions relating to the safety of ships and the welfare of their personnel. It became the agency which examines applicants for license as pilots and other ships' officers who must pass satisfactory tests for vision, color vision, and hearing. Lighthouse keepers are also required to pass similar examinations before they are appointed. The Public Health Service must also vouch for the physical ability of sailors qualifying as "able-bodied seamen," of which the crew of an American ship must have not less than 65 per cent; and since ships' officers must be versed in first aid before being licensed by the Steamboat Inspection Service, courses of instruction have been organized in 43 ports where medical officers give the necessary instruction preliminary to examination of the candidates in this subject. All medical service for the Coast Guard is furnished by the Public Health Service, which also sends its medical officers with the cruising cutters on the Alaska seal patrol and the North Atlantic ice patrol, and wherever else these ships may go.

Alcoholic liquors and narcotics required for medicinal use on board any American or foreign ship in an American port are purchased or otherwise authorized by an officer of the Public Health Service in amounts according to the governing medicinal needs.

The marine hospital at Fort Stanton, N. Mex., is for tuberculous beneficiaries suitable for treatment at a moderate altitude, the selection being limited to patients with favorable prognosis. Although climate is regarded as less important now than when this hospital was established in 1899, its value for the purpose is none the less, because the location is fairly central for merchant seamen from the Atlantic,

Pacific, Gulf, and Great Lakes and the hospital is convenient for the prolonged care necessary to complete recovery of selected tuberculous patients. Paid employment is provided for those approaching fitness for discharge and as a means of testing their recovery.

At the marine hospital, Carville, La. (the National Leper Home), there are 325 patients under treatment. Many of these are voluntary patients and others have been culled by State health officers from the population at large. Treatments by chaulmoogra oil, X ray, and mercurochrome, by violet ray and other lights, as well as by hydrotherapy and many other agents, have yielded encouraging results, and some cures have been effected. During the period 1920-1930, 78 patients were discharged to their homes with a clean bill of health and leprosy arrested. Radio, baseball, moving pictures, a library, a school, and religious solace furnished by chaplains and chapels for Catholics and Protestants bring some measure of contentment to the inmates. Leper patients physically fit are employed by the Government at nominal pay in light occupations at this institution, thus providing diversion and funds. All patients are clothed and otherwise well cared for at Federal expense.

From 1919 to 1922 the Public Health Service was designated as the principal agency to care for World War veterans in need of hospital care. To do this the service rented hospital space, converted hotels and other buildings to hospital uses, and, in general, did the best it could to meet an unprecedented situation which confronted it unexpectedly. In 1922, when Congress assigned this work to the Veterans' Bureau, the Public Health Service turned over 57 hospitals with 17,500 beds, 900 physicians, 1,400 nurses, and 9,200 employees. More than a million veterans passed through these hospitals during the time they were under the supervision of the Public Health Service.

The marine hospitals, in addition to their other functions, may be considered as a second line of defense behind the foreign quarantine division in preventing the entry of quarantinable disease into the country. For example, a seaman in New Orleans applied to the marine hospital for treatment. It was found that he was suffering from bubonic plague. The quarantine officer was notified at once and the ship was fumigated to destroy the rats and fleas through which this disease is transmitted. No further cases occurred.

For more than a decade the marine hospitals have replied to radio requests for medical advice received from ships at sea. These messages are transmitted by commercial stations which have been most generous in giving this service without charge. It occasionally happens that medical advice thus given enables the master of the vessel to save a life or alleviate pain, and it frequently enables the ship to continue on its course instead of putting in at some unscheduled port with loss of valuable time and inconvenience to passengers.

### Division of Foreign and Insular Quarantine

The right of a community to protect the health of its members by excluding nonresidents afflicted with communicable diseases has been recognized and exercised since the dawn of history. So well established is this right that the principle has never been questioned in any of the countless controversies which have raged over its application to specific cases. Quarantines have been enforced as to individuals, cities, and nations by methods ranging from the religious taboos of the primitive races to the bayonets and warships of the modern and more materialistic peoples.

Geographically, the quarantines of antiquity and, indeed, up to modern times, were comparatively limited. The means by which the great scourge diseases were transmitted were not understood, and in many cases it was thought that so long as physical contact with the diseased persons was avoided the disease would not spread.

Two chief factors have combined to increase the geographic area of quarantines in modern times. The first is the discovery of the means whereby diseases are transmitted, and the second is the development of transportation by sea, land, and air which facilitates the transportation of disease as well as persons and property.

Thus it comes about that all modern civilized nations now recognize the need for national quarantines and national agencies to enforce national quarantine regulations. The United States, due to the peculiar relationship between the individual States and the Federal Government, was one of the last of the great powers to have a national quarantine system in operation. In the early years of the Nation's existence the contention was advanced (and upheld by the courts) that the imposition and enforcement of quarantine regulations was an exercise of the police power reserved to the States.

Quite early in its history the Public Health Service was authorized to advise and cooperate with the State health authorities. Gradually this developed to a point where the various States came to realize the advantages of a national uniform system for foreign quarantines, and one by one the State legislatures voluntarily relinquished that function to national authorities. The Public Health Service now administers the quarantine at all ports of the United States, and this work is done through its division of foreign and insular quarantine.

This division has two major functions—(1) the prevention of the entrance of infectious and contagious human diseases from foreign countries into the United States, and (2) the medical examination of aliens applying for admission to the United States as immigrants. In the exercise of the first-mentioned function the division has jurisdiction over all ships and all persons, both citizens and aliens, coming into American ports from abroad. The second function, of course, has to do with aliens only. In the medical examination of immi-

grants the Public Health Service acts in an advisory capacity to the Immigration Service of the Department of Labor in ports of arrival in the United States and to the consular visa officers of the Department of State abroad.

The responsibility of the Public Health Service ceases with respect to an immigrant when he has been certified to the immigration authorities as either admissible or inadmissible from the standpoint of mental and physical fitness. On the other hand, the Public Health Service is solely responsible for the conduct of the quarantine work at the ports.

There are three lines of defense against the introduction of the quarantinable diseases, cholera, plague, yellow fever, typhus fever, and smallpox. The first line consists of the public health officers stationed abroad and working in cooperation with the consular officers to prevent such diseases in any form from being transported on vessels bound to the United States; the second line is the system of quarantine inspection at the various ports of entry; and the third line is the cooperation between the Public Health Service and local health authorities at ports of entry, particularly with respect to non-quarantinable infectious or contagious disease.

Once a diseased person has entered the United States, the Public Health Service can control only interstate travel of such person. A system of cooperation has been established with city and State health authorities at the ports respecting cases of nonquarantinable diseases.

Methods of preventing the introduction of quarantinable diseases vary with the diseases, as each spreads by different means and must be blocked accordingly. In the case of cholera, where the usual avenue of transmission is from person to person via the alimentary tract, the method is to prevent the entrance of any persons suffering from the disease. The work is complicated by the fact that certain persons are immune from cholera themselves but can carry the germs of the disease and transmit them to others. These persons, known as carriers, are more difficult to guard against than persons actually suffering from the disease, since the former may be entirely unaware of their condition. Cholera carriers are denied admission to the United States until they are noncarriers, and persons who have been exposed are detained long enough to determine whether or not they are infected.

Yellow fever, once the terror of the South, is probably the best example which can be cited of a disease almost entirely wiped out of existence by science. At one time there were periodic outbreaks in every southern State and throughout Central and parts of South America and Africa, but now the disease is found only in a few isolated districts of South America and Africa. The fight against yellow fever was won when it was discovered that the disease was trans-

mitted, in nature, solely through one particular species of mosquito, the *Aedes aegypti*, generally known as the *Stegomyia*. Once this was ascertained, the problem was reduced to the elimination of this mosquito on ship and its control on shore. The *Aedes aegypti* mosquito can fly but a short distance and breeds in small collections of fresh water about houses, which make it exceedingly vulnerable to careful control. Since the discovery of the means whereby yellow fever is transmitted, there has been only one outbreak of it in the United States—in 1905.

Plague, another quarantinable disease which claims its victims by the thousands in many parts of the world, is of two varieties—pneumonic and bubonic. The former, while very deadly, has occurred chiefly in Asia, only two small outbreaks having occurred in this country. The bubonic variety is an ever-present danger, for nearly every port in the world. Just as yellow fever was found to be transmitted by the *Aedes aegypti* mosquito, so it was found that bubonic plague is transmitted through the combined agency of rats and their fleas. The rats themselves are subject to plague; the fleas live on the rats until the latter die and then the fleas attack any warm-blooded animal, including man, and in biting pass the disease along. Fleas, however, specialize, and different animals have their own species that will live on no other animal except in emergencies. Thus, rats have several varieties; and while all of them theoretically can transmit plague, practical observations and experiments now under way indicate that for practical purposes there is only one, or possibly two, species of fleas that need be considered. Periodic fumigation of ships to rid them of rats and fleas is one of the methods employed, but in its search for better methods the Public Health Service has developed the rat proofing of ships, which is an effective method for the control of this danger.

Smallpox has been one of the historic scourges of man for centuries. Since the discovery of vaccination, about 135 years ago, the ravages of this disease have been curtailed to a remarkable degree, and it could be practically eliminated if vaccination were universal; but experience shows that neglect of this preventive measure is sooner or later always followed by a recrudescence of the disease in a community. Smallpox is combated at ports of arrival through the use of the immunity reaction, which indicates whether or not a person can contract the disease. This is effective as a method of determining whether a previous vaccination is still effective. Persons who have not been vaccinated or whose vaccinations are no longer active submit to another vaccination if they have been exposed to smallpox. No coercion is employed to induce persons to submit to vaccination, but if they are not vaccinated they must be detained in quarantine for 14 days.

Typhus fever is transmitted by body lice carrying the infection from an infected person to another. Hence, the method employed in fighting it is to destroy the lice. Just after the World War, when typhus was widespread in Europe, it was estimated that 3,000,000 persons died from it in five years. It was at this time that the trans-Atlantic steamship companies installed their delousing plants on advice of Public Health Service officers stationed abroad, and all persons arriving were bathed and disinfested, if not scrupulously clean. At present less than one-tenth of 1 per cent of the persons arriving at American ports are found to be infested; and it is reported that on account of the requirements of the United States Public Health Service there has been a great improvement in conditions abroad, particularly in places where body lice had long been accepted as a matter of course.

Arriving persons found suffering from diseases in the quarantinable group are cared for in the Public Health Service quarantine station hospitals until danger of transmitting the disease to others is past; then, if they are American citizens, they are released. If they are aliens, they are released to the immigration authorities.

In cooperation with the Department of Labor and the Department of State the Public Health Service, through its division of foreign quarantine, makes the physical examinations for all prospective immigrants. During the fiscal year ending June 30, 1930, officers of the service examined 1,211,796 applicants for admission and 988,759 alien seamen; 156,370 immigrants were examined abroad under a new system inaugurated in 1925, which has eliminated most of the heart-aches and suffering of the old system and has excluded the unfit to an extent never before possible.

So far as physical condition is concerned, prospective immigrants are divided into three classes—class A, those having defects which make them mandatorily excludable under the law; class B, those whose defects are not such as to make exclusion mandatory, but which may interfere with the applicant's ability to earn a living; and class C, those having minor defects which do not affect their ability to earn a living but which are noted, nevertheless.

#### Division of Domestic Quarantine

“Quarantine,” by which is meant any forced stoppage of travel, communication, or intercourse on account of contagious or infectious diseases on land or by sea, was probably the earliest known method used to prevent the introduction of disease. Isolation and quarantine, in the sense of holding vessels and people until danger of disease was supposed to have passed, were naturally in use for ages before the actual modes or methods for transmission of communicable disease were known, and during the colonial period each of the colonies

had more or less adequate provision for its protection from the introduction of exotic disease from abroad.

When the United States came into being, with its unique system of balance between Federal and State powers, health matters, which are universally regarded as police powers, were, by inference, left to the control of the several States. The control of foreign and interstate communication, however, was, of course, given to the Federal jurisdiction. Among the early laws passed in the first decade after the Constitution were those enjoining Federal officials (Army, revenue cutter, customs, etc.) to assist the several States in the enforcement of their quarantine laws. There were few or no laws other than local providing for the possibility of the interstate spread of disease. With the introduction of the railroad and steamboat, with consequent increase in travel and communication, the necessity for coordinated effort was seen, and by consent of the States, and under the commerce clause of the Constitution, laws were passed providing for Federal control both of interstate and maritime quarantine functions.

The domestic quarantine division of the Public Health Service came into being in 1910. Its functions may be summarized as follows:

1. Enforcement of the interstate quarantine regulations of the United States.
2. Development of State departments of health, especially divisions of communicable diseases and sanitary engineering.
3. Control over water supplies used for drinking and culinary purposes on railroads, vessels, and other interstate carriers.
4. Sanitation of the national parks in cooperation with the National Park Service.
5. Measures for the control and prevention of trachoma.
6. Studies of and demonstrations in rural sanitation.
7. The annual conference of State and Territorial health authorities with the Public Health Service.
8. Other contacts with State and Territorial health officials relating to health administration.

Some idea of the extent of the duties imposed upon the division by the requirement that it enforce the interstate quarantine regulations may be gleaned from the first paragraph of these regulations, which reads:

“For the purpose of interstate quarantine the following diseases shall be regarded as contagious and infectious diseases within the meaning of section 3 of the act approved February 15, 1893: Plague, cholera, smallpox, typhus fever, yellow fever, typhoid fever, paratyphoid, dysentery, pulmonary tuberculosis, leprosy, scarlet fever, diphtheria, measles, whooping cough, epidemic cerebrospinal meningitis, anterior poliomyelitis, Rocky Mountain spotted or tick fever,

gonorrhoea, chancroid, anthrax, influenza, pneumonia, epidemic encephalitis, septic sore throat, rubella, and chicken pox."

And paragraph 2 of the same regulations provides that—

"Any person or thing, either living or dead, which has been unduly exposed to or in intimate contact with or is infected with any of the diseases enumerated in section 1, except as otherwise provided in these regulations, shall be regarded as contagious or infectious until the contrary has been proved, and if found in any car, vessel, vehicle, or conveyance undergoing interstate transportation, shall be subjected to such inspection, disinfection, or other measures as may be necessary to prevent the spread of the infection from them."

It will be appreciated that these regulations impose an undertaking of considerable magnitude upon the division of domestic quarantine. The regulations cover almost every conceivable situation which might arise in connection with the travel of persons suffering from communicable diseases and the travel of things subject to infection. Provision is also made for the sanitation of interstate common carriers and for the supervision of drinking water and food supplies used on such carriers.

One of the activities of the Public Health Service in connection with interstate travel is the sanitary control over all water supplies used for drinking or culinary purposes on interstate carriers. It is obvious that this is a tremendous task. The water included in this description comes from more than 2,800 sources. Control over this supply from a sanitary standpoint is practicable only because of the cooperation given the Public Health Service by the State and city health authorities. There are many indirect results from this function of the Public Health Service. It has been found that when the water supply of a certain city has been adjudged unfit for use on trains in interstate traffic, these cities are usually quick to improve their water supply. The local citizenry is prone to feel, and quite properly, that what is not good enough for the traveler passing through their city is not good enough for the home folks.

Sanitation in the national park reservations is a most important phase of the work of the domestic quarantine division. Tourists from every State in the Union visit these parks each year, and if proper precautions were not taken the parks might easily become national focal points of disease distribution. Disposal of sewage and protection of water supplies are the principal subjects with which the public-health officials have to deal in the national parks.

The suppression of epidemics naturally falls within the jurisdiction of the domestic quarantine division. An outbreak of bubonic plague at Los Angeles, Calif., in recent years was suppressed by an active campaign against rodents combined with extensive rat proofing of buildings and the elimination of rat harborages. Similar steps

against the same disease have been effective at San Francisco, Oakland, Calif.; New Orleans; Pensacola; Galveston and Beaumont, Tex. The ground squirrels of California have been found to be carriers of the disease, and squirrel-free zones have been maintained around certain ports to prevent the infected squirrels from coming in contact with city rats and causing an extensive plague infection—first of the rats, and later of human beings.

It was the division of domestic quarantine which directed the investigation of the shellfish industry following upon an outbreak of typhoid fever attributable to infected oysters. The investigation resulted in the adoption of methods to prevent infection of the oysters through cooperation with the shellfish industry and State health authorities.

Rural sanitation is a subject in the development of which the Public Health Service takes an active interest through studies and demonstration work. The counties have been encouraged to work in this field in the past through allotments from Federal funds. The local communities now spend about \$10 for this work for every dollar contributed by the Federal Government. Demonstration projects in which the division is now participating include: General sanitation, child and maternity hygiene, tuberculosis control, acute communicable disease control, and school hygiene.

For the fiscal year ending June 30, 1929, the appropriations for the work of the domestic quarantine division totaled approximately \$526,000.

#### **Division of Sanitary Reports and Statistics**

It is a fundamental principal that in any warfare the success of the conflict largely depends upon our knowledge of whether there be an enemy, when, where, and in what numbers he may be found; and so in the fight against disease from a public health standpoint, whether it be municipal, State, national, or international, it is of fundamental importance that responsible officials have early, accurate, and complete knowledge as to the presence or absence of the important communicable diseases. In the absence of such knowledge there will be either a lack of vigilance, which may end in disaster, or, what is of vast importance in these days of commercial enterprise and rapid communication, there will be a futile and unnecessary expensive outlay against a supposed danger which does not exist.

This has, within the past few decades, been brought out, particularly in the matter of yellow fever. So long as infectible countries, such as ours, knew of the general existence of yellow fever but did not know the exact endemic centers of this disease, elaborate precautions had to be taken at our maritime quarantine stations against all yellow-fever-suspected areas, whereas, at present, with our intelligence service, such precautions have been waived with benefit to commerce.

The collection and dissemination of information concerning the prevalence of disease is of increasing importance in this age of speedy transportation facilities. For instance, it is possible that a person infected with typhoid fever may, even by motor, traverse the entire width of the country before the completion of the incubation period of this disease.

The division of sanitary reports and statistics of the Public Health Service may well be described as the intelligence office of the Federal health agency, whose intelligence, however, is used throughout the world by other governments, as well as by our own local and State agencies. Broadly speaking, the work of this division has two general phases—first, the collection from all parts of the world, including our own country, of information having a bearing on the maintenance of public health, and, second, the dissemination of this information in such manner and to such persons and organizations as will make it most valuable. Between the collection and dissemination of information there is, of course, the very important work of compilation.

The information employed by the division is secured from many sources, local, State, Federal, and international. To begin with, every consul and consular officer stationed abroad makes a weekly report to the Public Health Service as a part of his routine duties. The reports are made on forms provided by the Public Health Service and bearing a list of the more important communicable diseases. The consular officer obtains reports from health officials of the country to which he is accredited, and from these reports and such other sources as are available he fills in the information required on the form and mails it to the Public Health Service. These reports by mail cover the following diseases: Cerebrospinal meningitis (epidemic); cholera, Asiatic; cholera nostras, cholerae, or gastroenteritis; diphtheria; measles; plague, human; plague, rodent; poliomyelitis (acute anterior poliomyelitis or infantile paralysis); scarlet fever; smallpox; tuberculosis; typhoid fever (enteric fever, typhus abdominalis); typhus fever (typhus exanthematicus); and yellow fever.

In cases where there is an outbreak of plague, cholera, yellow fever, or typhus fever in his territory the consul promptly cables his information, instead of mailing it. Owing to this method of transmitting information it occasionally happens that a ship which has left a foreign port before one of these outbreaks reaches an American port in ignorance of the fact, and the master of the ship gets his information concerning the disease from the American health authorities.

Cholera, plague, yellow fever, typhus, smallpox, leprosy, and anthrax are classified as quarantinable diseases. This means that when a ship reaches port from an area in which there has been an outbreak of one of them, or with a case of one of these diseases on

board, there are special measures of disinfection and segregation which are taken to prevent any spread of the contagion or infection in the United States.

Reports from consular officials abroad are the principal sources upon which the Public Health Service depends for what may be distinguished as its current information on world health conditions. In addition, however, the service receives all of the bulletins and other documents issued by the health section of the League of Nations, the International Hygiene Office in Paris, and similar agencies. Most of these, of course, are at least a month old when they reach the United States, but they are valuable records for statistical purposes.

The United States has what is called sanitary treaties with all of the important nations of the world (International Sanitary Convention of Paris), as well as a regional agreement with Pan American countries (Pan American Sanitary Code). These sanitary agreements, which have the force of treaties, provide for an international exchange of information relating to public health. This means that all of the nations of Central and South America receive regularly all the data on public health gathered by the world-wide information system of the United States, this information being cabled in case of emergency conditions. This is of immense value to some of the small States which do not have their own facilities for such purposes.

In the domestic field the Public Health Service is kept informed of conditions by weekly reports mailed in from local health officials in 570 cities of 10,000 or more population. These reports cover the prevalence for their respective territories of the following diseases: Chicken pox, diphtheria (carriers not included), influenza, measles, mumps, pneumonia (all forms), scarlet fever, smallpox, tuberculosis (all forms), typhoid fever, whooping cough, cerebrospinal fever, dengue, lethargic encephalitis, pellagra, poliomyelitis (infantile paralysis), rabies (in man) (developed cases), rabies (in animals), typhus fever.

The local officials who send in these reports are classified as "collaborating epidemiologists" of the Public Health Service and are paid \$1 a year. Their reports are mailed under Government "frank" upon cards provided for that purpose.

In addition to the reports mailed in each week from the 570 cities, the service also receives weekly telegraphic reports from health officials of the various States.

These reports from city and State officials and from the consular officers abroad constitute the basis of the information contained in PUBLIC HEALTH REPORTS, which is issued weekly by the Public Health Service and sent to nearly 10,000 public-health officials, sanitariums, libraries, and institutions throughout this country and abroad.

The reports, besides tabular statements of domestic and foreign conditions indicating the state of public health, contain special articles on various phases of public health work and summaries of current works on sanitary engineering, as well as abstracts of current court decisions affecting public health work. It may be remarked here that the experience of many years indicates that the courts in nearly every instance apply the tests of common sense and reasonableness to acts of public-health officials which come before the courts for review.

When there has been an outbreak of some particular disease necessitating special measures by the service, in cooperation with city and State health officials, it is the practice to include in the PUBLIC HEALTH REPORTS an account of these activities.

The editing and distribution of PUBLIC HEALTH REPORTS is one of the functions of the division of sanitary reports and statistics.

It may be asked, Of what use is all of this statistical and other information? Some may doubt the value of informing a public-health official in California of an epidemic of influenza in Massachusetts. But it is axiomatic in public-health work that disease can not be prevented unless the health officials know where, when, and under what circumstances communicable diseases occur.

The value of reports of this kind was strikingly demonstrated during the influenza epidemic a few years ago. The epidemic originated, so far as the United States is concerned, in Boston and spread westward across the country. It was found that public health officials in touch with the situation could predict almost to the day when cases of this disease would be reported in the Middle Western and Western States along the line of march of the "flu" bacillus. And to be forewarned of epidemics of this character is more than half the battle of combating them.

The division of sanitary reports and statistics was the first organization to take up the idea of radio broadcasting of talks on health topics on a large scale. This service was inaugurated in 1921. The talks are prepared by medical officers of the service and leading specialists of the United States and are broadcast from the naval station at Arlington, Va. Multigraphed copies are sent to other broadcasting stations throughout the country, and frequently they are "put on the air" by these stations.

Another function of the division is handling the vast number of requests for literature and information on health topics which pour into the Public Health Service. The service now has nearly 2,000 publications which may be sent in reply to such requests. When a request comes in for information not given in any of these publications, an effort is made to refer the inquirer to sources from which he can obtain what he desires. Frequently inquiries on subjects falling

within the scope of other agencies of the Government are referred to those offices for reply. Likewise it happens quite often that other departments and bureaus receive requests for information which can be supplied by the Public Health Service. A regular system of interchange of such requests has been worked out. In the course of the last fiscal year ending June 30, 1930, a total of approximately 370,000 copies of publications was sent and individual replies made in response to requests for information.

#### Division of Venereal Diseases

The problem of venereal-disease control has for long occupied the attention of the United States Public Health Service. As far back as 1875 the annual report of the Surgeon General contained a number of recommendations for the prevention of the introduction of syphilis and gonorrhoea into the United States and suggestions for the treatment of those already infected which apply equally to the problem of to-day as at that time. However, it was not until the World War brought the country to a state of mind in which it was willing to look these problems squarely in the face that the Government assumed its share of responsibility of informing the public frankly concerning the nature and prevention of venereal disease and the application of medical and other measures of control.

On July 9, 1918, Congress passed the Chamberlain-Kahn Act creating in the Public Health Service a division of venereal diseases, and appropriating more than \$4,000,000 for use during the two following fiscal years to carry out duties imposed by this act, which were as follows:

- (1) To study and investigate the cause, treatment, and prevention of venereal diseases.
- (2) To cooperate with State boards or departments of health for the prevention and control of such diseases within the States, and
- (3) To control and prevent the spread of these diseases in interstate traffic.

A tremendous impetus was thus given to venereal-disease control work as a result of the interest of the Public Health Service in this movement. During the first 12 months after the passage of this act every State in the Union except four was prosecuting vigorous measures in accordance with the cooperative plan outlined by the Public Health Service.

In keeping with the necessary and inevitable economical readjustments following the war, which materially affected the amount of Federal appropriations, the appropriation for venereal-disease control activities dwindled to approximately \$75,000 per annum. More recently, however, Congress has been more generous, and for the present fiscal year the appropriation is \$100,000.

During the fiscal year 1930 there were 44 of the States which made regular reports to the Public Health Service relative to the prevalence of venereal disease and also on the control activities of their States in this field of public health. Practically all States have provided treatment for gonorrhoea and syphilis in public clinics where both those who can pay a nominal fee as well as the truly indigent patient can be treated. More than 100,000 new patients are admitted annually to these clinics for treatment. These patients are receiving an average of 18 treatments, or a total of more than one and a half million treatments, annually in the clinics throughout the United States which report to the Public Health Service through their State boards of health.

The fact that the patients average 18 or more treatments is one of real satisfaction to those interested in prevention and control of the disease. Recent studies of treatment of infectious relapse among those patients coming to treatment for early syphilis reveal that the chance for relapse is greatly reduced with the administration of 14 or more injections of an arsenical product. It is obvious that it is in the period of relapse that much of the infection is spread, since the victim is usually unaware of the relighting of his infection.

It is especially encouraging to find that approximately 50,000 patients annually remain under treatment in the public clinic until they are discharged as arrested or cured. However, since there are still twice as many fresh infections coming to the public clinic annually as there are cases discharged as arrested or cured, the venereal-disease problem still remains one of educating the public in regard to the dangers of exposure and in prophylaxis and effectiveness of early and thorough treatment during the period of infectivity. Efforts directed toward this end have resulted in State departments of health maintaining extensive laboratory service for determining the presence of the spirocheta pallida and the gonococcus. During the fiscal year 1930 there were 1,000,000 blood serum tests made for syphilis, 10,000 microscopic tests for the live spirochete in the chancre stage of syphilis, and 350,000 microscopic tests for the gonococcus.

In the field of prevention, work has been done through the medium of lectures, films, exhibits, and slide showing, and the distribution of pamphlets. There are approximately 800,000 pamphlets distributed annually. These pamphlets deal with every phase of the venereal-disease problem from the giving of sex education to the youth and schools of the country, to the results of clinical, field, and laboratory researches into the various aspects of the venereal diseases of material significance to the health authorities, the medical profession, and the public generally. Under the direction of the United States Public Health Service last year there were 28 lectures and films shown relative to venereal disease. This work, which had its beginning largely in the Public Health Service, is being rapidly assimilated by the State

boards of health; in fact, last year the States reported 3,000 lectures and film showings on venereal-disease information.

In order that complete and accurate knowledge as to the extent of the venereal diseases among the general population might be known, the United States Public Health Service, in cooperation with State and county health authorities and the American Social Hygiene Association, took a 1-day census of the number of cases of venereal disease under treatment in selected communities throughout the United States. The estimates based on these data reveal that from the number of persons infected the control of these diseases is of paramount importance to the well-being of the Nation. The communities selected for survey were well distributed geographically. The surveys included reports from physicians, hospitals, clinics, and other institutions administering to the sick, serving approximately 20 per cent of the population of the United States, including communities from the most sparsely populated to the very densely populated cities.

From these data it is estimated that we have approximately 643,000 cases of syphilis and 474,000 cases of gonorrhea constantly under medical care. In order to determine the trend of the infections a resurvey has been undertaken in the originally surveyed communities. The results of these studies are not yet available.

An extensive cooperative study is being made with the Committee on Research in Syphilis, of New York City, to determine the effectiveness of the various methods of treatment in five of the best clinics of the United States and if possible through these findings make a standard form of treatment for the several types of syphilis.

The division of venereal diseases for a number of years has been actively engaged in research studies to determine the relative significance of serological tests; to determine the nature of the reacting substances in the blood stream; to fix as closely as possible the duration of infectivity in persons infected with syphilis in both treated and untreated individuals; and to evaluate the use of biological products in the diagnosis, treatment, and prognosis of gonorrhoea.

With the aid of one of the large philanthropic foundations, the Public Health Service is developing a more comprehensive program for the control of syphilis among certain selected rural population groups, which includes not only Wassermann surveys to determine the prevalence of syphilis in large population groups, but also the provision for intensive treatment without cost for all cases where the individuals voluntarily agree to place themselves under medical care. Projects of this character up to the present time have been established in seven counties in various sections of the South and are carried on in cooperation with State and local health authorities. The objects of these studies are to determine the prevalence of syphilis

in the Southern States in as large a cross section of the population as possible, to demonstrate the practicability of mass treatment on a large scale under the conditions existing in rural communities, and to ascertain as far as possible what effect the mass treatment will have on the incidence of syphilis in the future.

As a measure for preventing the interstate spread of the venereal diseases, a free clinic has been maintained by the Public Health Service at Hot Springs, Ark., in cooperation with the National Park Service, since 1920 for the treatment of indigent cases of venereal disease which come to Hot Springs for the free baths. Large numbers of individuals continue to come from many States, and in this way the clinic makes a valuable contribution to the prevention of the interstate spread of syphilis and gonorrhea through the elimination of sources of infection in a group most likely to become a public menace. During the fiscal year ended June 30, 1930, 5,704 cases were handled, 79,180 treatments were administered, and in addition to these treatments, 107,296 baths were given. The annual increase for relief and treatment is approximately 8 per cent. Moreover, as a part of the educational activity of the division of venereal diseases the facilities of this clinic have been made available to physicians who desire to take refresher courses in the diagnosis and treatment of the venereal diseases. These courses are gratis and have served to stimulate the interest of all who have taken them in the problems of venereal-disease control.

Successful efforts have also been made to secure essentially uniform laws throughout the United States concerning the control of venereal diseases. All States now require these diseases to be reported, and control measures are applied in a manner similar to that in which they are applied to other contagions. Under certain conditions cases which continue to spread the disease are quarantined.

Most States have laws forbidding the sale of "quack" remedies for venereal treatment. Uniform laws and ordinances have been adopted governing the control of prostitution and making the transmission of venereal diseases a crime.

#### Division of Mental Hygiene

Early in the spring of 1928 the late Congressman Stephen G. Porter, chairman of the Committee on Foreign Affairs of the House of Representatives, and former chairman of the American delegation to the Second Opium Convention at Geneva in 1925, introduced a bill in Congress authorizing the establishment of two institutions for the confinement and treatment of persons addicted to the use of habit-forming drugs. After extended hearings and a favorable report, the bill passed the two Houses of Congress and was approved by the President on January 19, 1929.

The act authorizing these two institutions created within the office of the Surgeon General of the Public Health Service an administrative and investigative division then called the narcotics division, which was charged in law with the administration of the two narcotic farms; with studies of the nature of drug addiction and the best methods of treatment and rehabilitation of persons addicted to habit-forming drugs; with the dissemination of information on the best methods of treatment and research; and with cooperation with State and local jurisdictions with a view to developing facilities for the care and treatment of narcotic addicts.

It is, perhaps, common knowledge in the United States that the practice of indulging in habit-forming drugs, like the problem of alcoholism and mental disorders, is not limited to any one class of society; the high, the low, the rich, the poor, the weak, and the strong are all represented. Nor does one occupation possess a monopoly of the practice; for drug addicts are found in most unexpected places, no nationality, race, or color being exempt.

While the act which authorizes the establishment of the two narcotic farms is to make provision first for those drug addicts who have committed offenses against the United States, it also provides for the admission of voluntary cases. The institutions, therefore, will care for what has sometimes been classed as the criminal addict element, and also for those persons addicted to the use of habit-forming drugs that are sometimes classed as the socially adjusted addict.

Persons addicted to the use of opium or its derivatives seek cure from a variety of reasons. The sincerity for giving up the drug vanishes, however, with the approach of withdrawal symptoms. With the subsidence of the withdrawal symptoms, sometimes called the period of "denarcotization," the physical rehabilitation begins. It is during this period that all inhibitions appear to be released, sensual conduct and perversions being the most outstanding reactions. In the development of the two United States narcotic farms for the treatment of these individuals, isolation, artificial barriers, and constant vigilance are fundamental and necessary.

The actual number of drug addicts in the United States is an unknown quantity, because the use of narcotics is usually carried on in secret. Various estimates have been made and much of the popular writings of the day undoubtedly tend to exaggerate the evil effects of the so-called "demon flower." Any estimate greater than 200,000 is a very liberal one, and it is believed to be beyond reasonable probability. The Public Health Service has estimated that there are 110,000 addicts in the United States, or approximately 1 in each 1,100 persons.

One of the greatest precipitating causes of drug addiction is ease of access to the drug and contact with other addicts. In a recent study conducted by the Public Health Service, it was found that among 3,587 drug addicts, 1,694, or a little less than half, attributed their addiction to the influence and contacts of other addicts in the community. Curiosity, thrill, and bravado accounted for 340 more, whereas, self-treatment for the relief of pain accounted for 531 as the cause of addiction. The predisposing or underlying causative factors, however, rest upon the constitution or mental make-up of the individual. These factors are being recognized and appreciated more and more in the treatment and management of drug addiction.

For purposes of general description, the drug addict population may be classified under two broad general headings—namely, the mentally normal, who comprise a small but variable proportion, and the mentally abnormal. The latter may be classified, on the basis of constitution, first, as to intelligence level and, second, as to affective mental make-up. Of the first class, comprising a small proportion of addicts, the intelligence may vary from that of a child 6 or 7 years of age to that of a child 10 or 11 years of age. Of the second class, the intelligence level may be inferior, or seem superior, but the quality of their emotional make-up and mental constitution renders them incapable of adapting themselves in accordance with the standards of conduct established by society. Drug addiction in such individuals is a complication of an established delinquency.

On the other hand there are certain types of individuals who are of the definite neurotic type. These people are, more or less, in constant conflict with themselves, and intemperate and impulsive conduct and inordinate emotional reactions stamp them as unusual, if not odd. These neurotic constitutions are prone to absolve their obligations and responsibilities to themselves and to society, and to adopt a self-exculpatory philosophy toward their real or imaginary difficulties. The habitual use of narcotic drugs affords a temporary refuge for such persons, enabling them to obtain through artificial narcotism a brief respite from the supposed hardships that realities appear to impose. Not all neurotic individuals become addicted to the use of habit-forming drugs, however, for many of them find refuge through other more or less sublime channels. While some of them are inefficient, many of them lead useful lives and contribute no little to the field of art and literature.

On the other hand, various experiences indicate that a drug addict with a normal mental background will not continue as a drug addict, as narcotism is unnecessary for the comfort of one who enjoys that satisfaction which comes from good mental health. Nor will drug addiction produce in such an individual the so-called degeneration

and lack of responsibilities seen in the addicts of the temperamental neurotic or psychopathic constitution.

In the treatment and care of drug addiction, the most obvious need, making first appeal, is institutional care during the period of the so-called withdrawal symptoms. On the other hand, the lack of cooperation on the part of most drug addicts in their treatment; the recourses adopted to obtain a supply of their drugs; their return to the habit; and the perversions and social reactions of drug addicts generally, engender a feeling of abhorrence and lack of interest on the part of the general public and many of the medical profession. It must be conceded, however, that a majority of persons now addicted to the use of habit-forming narcotic drugs are mentally ill. If this be true, then their treatment, segregation, care, and efforts at rehabilitation must be through a mental health approach.

This was recognized by the Congress of the United States, for on June 14, 1930, the name of the narcotics division in the Public Health Service was changed to the division of mental hygiene. All the authority, powers, and functions exercised by the narcotics division were transferred to the division of mental hygiene, and the scope of functions and activities of the newly created division were enlarged. Thus the division of mental hygiene is charged with making studies and investigations of the abusive use of narcotic drugs and the quantities necessary to supply the normal and emergency medical and scientific requirements of the United States. It is also charged with making studies and investigations of the causes, prevalence, and means for the prevention and treatment of mental and nervous diseases. In other words, special provision for the care of the narcotic addict is but a small part of that large and important problem of mental hygiene.

Since 1914 the Public Health Service has been engaged from time to time upon special studies and investigations concerning the relationship of mental and nervous disorders to the public health. Such investigations and studies have embraced the field of clinical psychiatry; administrative experiences in connection with the operation of institutions especially devoted to the care and treatment of mental diseases; administrative and investigative activities with reference to the mental phase of immigration work; and special field studies and investigations in institutions devoted to the care of the dependent, delinquent, and criminal classes. Special field investigations have also been made in communities and political subdivisions of the United States with reference to the prevalence, the needs, and the social situation of the mentally disordered population.

On May 13, 1930, the President approved an act of Congress authorizing that medical relief under the Department of Justice in

**Federal penal and correctional institutions shall be supervised and furnished by personnel of the Public Health Service.**

Another act of the Seventy-first Congress, second session, approved by the President on May 13, 1930, authorizes the establishment of a hospital for the care and treatment of all persons charged with or convicted of offenses against the United States, who are in actual custody, and during their detention or confinement are or shall become insane, afflicted with an incurable or chronic degenerative disease, or so defective mentally or physically as to require special medical care and treatment not available in existing Federal institutions.

A review of the public documents respecting these two acts again calls attention to the fact that important medical problems arise in connection with the care of Federal prisoners. These may be considered under the headings of routine requirements and of research activities. The routine requirements involve the psychiatric examination and classification of all inmates and physical examinations that will permit of prompt recognition and correction of physical defects and diseases among prisoners.

It is obvious that the Public Health Service is interested in the investigative and the administrative possibilities which the laws provide. Apparently no new precedent has been established by charging the Public Health Service with this new responsibility; for it is merely another step in attempting to coordinate and promote uniformity in the medical work of the Federal Government.

#### **Division of Personnel and Accounts**

Every organization which operates over a wide geographic area needs a central control office, a nerve center, so to speak, which directs the movements of the distant members. So the United States Public Health Service, which has the earth and the air above and the waters, if any, underneath the earth, for its sphere of activity, has a dispatcher's office in the guise of its division of personnel and accounts. It is through this division that each of the more than 5,000 men and women who comprise the personnel of the service came into the organization; and it is through this office that these same men and women are moved about in the great game which the Public Health Service plays with disease as its opponent and the world as its chess board.

Being a mobile organization and required to meet public health emergencies, the Public Health Service is organized and conducted under strict disciplinary rules. This necessitates adequate central control and means to attend to the mechanics of movements and other matters affecting personnel. In fact, there must be some specific office charged with the keeping of records of appointments, promo-

tions, discontinuances, leaves of absence, changes of station, and maintenance of discipline in accordance with the laws and regulations on the subject. It is the division of personnel and accounts which does all these things for the Public Health Service. In addition the division looks after the preparation of estimates of appropriations to carry on activities, recommends apportionments of appropriations in conformity with law, makes allotments to conduct the several activities, and maintains records of all finances and expenditures, including an elaborate system of cost accounting for the manifold operations of the Public Health Service.

The addition of new laws relating to accounting and to reclassification and retirement of employees renders these records essential to the proper administration of public health activities. Moreover, the division of personnel and accounts is the property office of the Public Health Service. Every article which the service uses, from a laboratory microscope to a hospital ambulance, must be properly accounted for from the time it is purchased until it is worn out and condemned. It is through this division that all records of property and supplies are maintained and surplus supplies at one station distributed to other stations as may be needed.

If any function of the division is more important than the others it is the recruiting and giving commissioned personnel opportunity for experience in the larger duties they will be called upon later to perform. It is this training and experience that enables officers of the Public Health Service to make investigations of far-reaching importance. By this means, light was thrown on the transmission of yellow fever; the cause of hookworm disease in America was discovered, and tularæmia, a disease peculiar to America, was identified and its method of transmission established. Moreover, through experience, officers are able to engage in highly technical investigations affecting the public health. A candidate for appointment in the regular corps is required to pass a thorough examination before a board of commissioned officers. These examinations are held at intervals in various large cities of the United States for those candidates who, after application, have been invited by the Surgeon General to participate. The examinations consist of oral, written, and laboratory tests necessary to determine the candidate's mental and physical aptitude, as well as professional attainments. The service makes no allowance for the expenses of candidates appearing for examination.

Graduates in medicine, dentistry, public health engineering, or pharmacy may apply for appointment if they are eligible. Those who desire to enter in the grade of assistant surgeon must be between the ages of 23 and 32. Those who have the qualifications for entrance in the grade of passed assistant surgeon must not be over 39 years of age. An average of 80 per cent in all branches is required for ad-

mission to the service. Appointments are made by the President on recommendation of the Surgeon General and subject to confirmation by the Senate. When this confirmation has been given, the candidate is issued a commission in the grade of assistant surgeon or passed assistant surgeon and is assigned to duty.

At this point in the career of the young Public Health Service officer it becomes the duty of the division of personnel and accounts to see to it that he is given such assignments as will provide him with a well-balanced experience, necessary to the solution of larger problems while he remains in the service. So far as practicable, during the first four years he is in the service, the young medical officer is detailed for duty at a marine hospital, a quarantine station, an immigration station, hygienic laboratory, and in public health work in the field, in the order named.

The length of time the officer spends on each detail depends upon his previous training and the exigencies of the service. Where possible and within limits, consideration is given to the preference of the individual officer.

After three years' commissioned service, those in the grade of assistant surgeon are eligible for promotion, after examination, to the grade of passed assistant surgeon, except assistant pharmacists, who are required to serve five years before promotion to this grade, which is the senior grade for pharmacists.

Passed assistant surgeons, after 12 years' commissioned service, may be promoted to the grade of surgeon.

Promotion to the grade of senior surgeon is made after 20 years' service, and to the grade of medical director after 26 years' service.

Before such promotions are made, the officer is required to pass a physical and professional examination, and his record must be found satisfactory on review by a board of commissioned officers.

The pay of commissioned officers of the Public Health Service ranges from \$2,699 for the grade of assistant surgeon to \$7,179 for a medical director or assistant surgeon general, both without dependents. For officers having dependents, the range is from \$3,158 to \$7,200.

The Surgeon General receives \$9,700 if he has dependents and \$9,179 if he has none.

These salaries are established by the same law which fixes those of officers of the Army and Navy. The grades are comparable to those of commissioned officers of the Army and Navy.

All other personnel of the Public Health Service is selected from lists of eligibles established by the Civil Service Commission under civil service law and regulations.

For administrative purposes the Public Health Service divides the country into six sanitary districts with a medical director assigned to each district. Through these directors the Surgeon General

keeps in touch with State and local health authorities, universities, industries, and other interests favorably affected by public health work. These directors also make inspections of service stations and activities with a view to their coordination, investigate administrative difficulties, and devise means for the prevention and suppression of epidemics liable to occur within their districts. The ordinary routine of stations is handled by the officers in charge. The district directors accordingly act largely in an advisory capacity without the necessity of considerable personnel.

The present is an age of specialization, particularly in the field of medicine and sanitation, and thus it happens that within the service there are groups of officers having special qualifications for solving particular problems. Some of these officers may be devoting their time regularly to investigations of communicable diseases, nutritional diseases, the health hazards of industry, or other public health problems. But when an emergency arises in any district, selection and detail of personnel must be made to meet it. In such cases the division of personnel and accounts is the channel through which the Surgeon General transmits his orders. All epidemic situations are met in this manner. These movements of personnel are limited as much as possible, however, by the policy of having officers with all-round training distributed here and there so as to meet emergency situations as they arise.

There are many extra routine demands upon the Public Health Service for the services of specialized personnel. The extension of the immigration inspection work to European, Canadian, Mexican, and Cuban ports, the fight against the spread of bubonic plague in California, the tetraethyl lead investigation, the investigation of the shellfish industry, investigations and administration of methods to safeguard milk supplies, and advisory work with the Office of Indian Affairs are demands which require the selection and disposition of qualified personnel. The act of Congress of May 13, 1930, authorizing the Public Health Service to furnish medical relief in all Federal penal and correctional institutions, imposes new duties on the service which will require additional personnel.

In addition, there are constant demands from private and semi-public organizations for assistance and instruction in public health matters. Officers are detailed, therefore, to attend meetings of associations for the promotion of public health. It is the policy of the service to supply speakers wherever possible and where the importance of the occasion merits, for the dissemination of public health information and to cooperate with and aid State and local authorities in the solution of public health problems which arise in connection with administration. It is necessary for some agency to evaluate for the

Surgeon General the relative importance of the demands received. This decision devolves largely upon the division of personnel and accounts because of its knowledge of the availability of officers from day to day.

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### COURT DECISION RELATING TO PUBLIC HEALTH

*City ordinance, making unlawful the slaughter of animals in certain territory without permission from common council, upheld.*—(New York Supreme Court, Appellate Division; *City of Albany v. Newhof et al.*, 246 N. Y. S. 100; decided Nov. 26, 1930.) An ordinance of the City of Albany provided that "It shall not be lawful for any person without permission from the common council to slaughter cattle, sheep, or swine in any building now erected or hereafter to be erected, or otherwise, within the territory hereinafter described." In the trial court the city had judgment restraining the defendants from slaughtering cattle on their premises in Albany, the city having alleged that defendants were unlawfully so doing without the city council's consent. The defendants questioned the validity of the ordinance, but as to this the appellate division stated that the ordinance was "a legislative act of the common council, authorized both by legislature and constitution," and was "not inconsistent with the constitution or any State law." The ordinance was valid, the court held, even though the city council acting in its legislative capacity placed the dispensing power in itself. "Nor," said the court, "is there discrimination in that consent to slaughter cattle within a restricted district depends upon the act of the common council as an administrative body." The appellate division affirmed the trial court's judgment, but said that "the plaintiff should be restrained from enforcing its judgment until defendants have had a reasonable opportunity to apply for consent to continue their business."

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### DEATHS DURING WEEK ENDING JANUARY 17, 1931

*Summary of information received by telegraph from industrial insurance companies for the week ended January 17, 1931, and corresponding week of 1930. (From the Weekly Health Index issued by the Bureau of the Census, Department of Commerce.)*

	Week ended January 17, 1931	Corresponding week, 1930
Policies in force.....	75, 092, 689	75, 374, 773
Number of death claims.....	17, 116	15, 936
Death claims per 1,000 policies in force, annual rate.....	11. 9	11. 0

*Deaths<sup>1</sup> from all causes in certain large cities of the United States during the week ended January 17, 1931, infant mortality, annual death rate, and comparison with corresponding week of 1930. (From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce)*

[The rates published in this summary are based upon mid-year population estimates derived from the 1930 census]

City	Week ended Jan. 17, 1931				Corresponding week, 1930		Death rate <sup>2</sup> for the first 3 weeks	
	Total deaths	Death rate <sup>2</sup>	Deaths under 1 year	Infant mortality rate <sup>3</sup>	Death rate <sup>2</sup>	Deaths under 1 year	1931	1930
Total (81 cities).....	9,579	14.0	791	62	12.8	726	13.8	13.0
Akron.....	40	8.1	4	39	8.8	10	8.0	8.3
Albany.....	37	14.9	2	40	19.0	3	14.4	15.6
Atlanta.....	82	15.4	9	92	17.1	13	17.3	16.7
White.....	42	(9)	5	79	(9)	3	(9)	(9)
Colored.....	40	(9)	4	115	(9)	10	(9)	(9)
Baltimore.....	222	14.2	19	64	13.8	16	15.3	15.1
White.....	164	(9)	11	48	(9)	10	(9)	(9)
Colored.....	58	(9)	8	125	(9)	6	(9)	(9)
Birmingham.....	70	13.6	10	101	16.3	3	15.0	14.5
White.....	33	(9)	2	34	(9)	2	(9)	(9)
Colored.....	37	(9)	8	195	(9)	1	(9)	(9)
Boston.....	250	16.6	20	57	14.2	30	16.7	16.2
Bridgeport.....	34	12.1	4	66	13.1	6	13.7	14.4
Buffalo.....	167	15.0	13	53	11.9	19	14.0	14.3
Cambridge.....	25	11.4	5	101	12.8	3	14.2	15.1
Camden.....	33	14.5	2	35	13.6	1	17.7	14.3
Canton.....	29	14.2	5	114	11.9	3	10.7	11.7
Chicago.....	715	10.8	72	64	11.7	54	11.2	11.5
Cincinnati.....	168	19.2	14	84	14.8	3	18.4	16.4
Cleveland.....	204	11.7	13	38	11.4	23	11.3	11.9
Columbus.....	77	13.6	4	39	15.6	5	14.3	14.7
Dallas.....	69	13.2	6	6	14.9	8	13.2	13.4
White.....	55	(9)	4	(9)	(9)	5	(9)	(9)
Colored.....	14	(9)	2	112	9.5	3	14.4	9.5
Dayton.....	57	14.4	8	48	16.1	5	17.0	14.7
Denver.....	99	17.7	5	18	19.7	4	13.3	15.1
Des Moines.....	39	14.1	1	69	9.6	32	8.6	9.7
Detroit.....	278	8.8	43	69	10.3	2	13.2	11.6
Duluth.....	27	13.8	2	49	21.8	5	23.8	23.3
El Paso.....	35	17.4	5	1	19	10.8	3	10.5
Erie.....	28	12.4	1	113	13.1	2	13.4	12.4
Fall River.....	35	15.8	5	64	9.2	6	8.3	8.7
Flint.....	27	8.6	5	11.1	11.1	5	13.3	11.8
Fort Worth.....	40	12.5	2	(9)	(9)	2	(9)	(9)
White.....	35	(9)	0	(9)	(9)	2	(9)	(9)
Colored.....	5	(9)	0	30	9.6	4	8.8	10.7
Grand Rapids.....	34	10.3	2	8.8	8.8	3	12.8	12.1
Houston.....	78	13.1	4	(9)	(9)	1	(9)	(9)
White.....	62	(9)	4	74	13.1	10	15.4	15.7
Colored.....	16	(9)	0	85	(9)	7	(9)	(9)
Indianapolis.....	114	16.1	9	0	(9)	3	(9)	(9)
White.....	96	(9)	0	80	11.7	4	12.0	12.7
Colored.....	18	(9)	0	103	12.8	6	14.8	12.1
Jersey City.....	72	11.8	9	74	(9)	5	(9)	(9)
Kansas City, Kans.....	37	15.7	5	254	(9)	1	(9)	(9)
White.....	27	(9)	3	61	13.9	10	15.1	13.2
Colored.....	10	(9)	2	128	13.7	1	14.2	12.6
Kansas City, Mo.....	121	15.4	8	119	(9)	1	(9)	(9)
Knoxville.....	32	15.3	6	24	15.6	5	11.9	12.3
White.....	25	(9)	5	64	14.1	19	14.0	13.4
Colored.....	7	(9)	1	60	19.3	8	18.5	14.9
Long Beach.....	33	11.3	1	59	(9)	6	(9)	(9)
Los Angeles.....	341	13.5	22	66	(9)	2	(9)	(9)
Louisville.....	97	16.4	7	102	11.4	2	13.6	11.0
White.....	72	(9)	6	26	14.3	5	13.7	11.4
Colored.....	25	(9)	1	21	15.2	4	18.5	15.5
Lowell.....	23	11.9	4	0	0	1	(9)	(9)
Lynn.....	30	15.2	1	58	(9)	3	(9)	(9)
Memphis.....	79	15.9	2	76	13.2	3	13.9	12.1
White.....	37	(9)	0	71	(9)	3	(9)	(9)
Colored.....	42	(9)	2	88	(9)	0	(9)	(9)
Miami.....	31	14.4	3	39	9.3	12	9.5	10.5
White.....	27	(9)	2	(9)	(9)	3	(9)	(9)
Colored.....	4	(9)	1	(9)	(9)	0	(9)	(9)
Milwaukee.....	114	10.1	9	(9)	(9)	12	9.5	10.5

See footnotes at end of table.

*Deaths<sup>1</sup> from all causes in certain large cities of the United States during the week ended January 17, 1931, infant mortality, annual death rate, and comparison with corresponding week of 1930—Continued*

City	Week ended Jan. 17, 1931				Corresponding week, 1930		Death rate <sup>2</sup> for the first 3 weeks	
	Total deaths	Death rate <sup>2</sup>	Deaths under 1 year	Infant mortality rate <sup>3</sup>	Death rate <sup>2</sup>	Deaths under 1 year	1930	1929
Minneapolis.....	105	11.6	14	90	13.2	7	12.9	13.1
Nashville.....	54	18.1	2	30	13.5	4	17.2	16.7
White.....	35		1	20		3		
Colored.....	19	( <sup>4</sup> )	1	59	( <sup>4</sup> )	1	( <sup>4</sup> )	( <sup>4</sup> )
New Bedford <sup>5</sup> .....	27	12.5	2	53	13.9	1	14.0	13.1
New Haven.....	32	10.3	1	19	14.4	2	12.2	14.3
New Orleans.....	188	21.0	12	66	19.0	12	21.9	20.1
White.....	118		4	33		7		
Colored.....	70	( <sup>4</sup> )	8	130	( <sup>4</sup> )	5	( <sup>4</sup> )	( <sup>4</sup> )
New York.....	2,134	15.7	162	68	11.4	147	14.1	11.8
Bronx Borough.....	291	11.4	19	43	7.7	19	9.9	8.0
Brooklyn Borough.....	747	14.8	57	60	10.6	50	13.2	10.9
Manhattan Borough.....	833	23.9	64	109	17.4	55	21.6	17.9
Queens Borough.....	222	10.0	18	49	7.2	19	9.1	7.9
Richmond Borough.....	41	13.1	4	72	14.4	4	14.0	13.5
Newark, N. J.....	115	13.5	8	42	11.8	11	13.4	14.3
Oakland.....	73	13.0	2	26	15.3	5	14.6	13.7
Oklahoma City.....	45	11.9	6	83	9.2	7	11.7	8.6
Omaha.....	65	15.6	6	67	12.4	1	16.3	14.3
Paterson.....	46	17.3	4	69	10.2	2	13.6	12.9
Philadelphia.....	622	16.5	43	62	12.8	30	15.1	13.2
Pittsburgh.....	216	16.7	24	83	12.9	22	16.7	13.8
Portland, Oreg.....	81	13.8	4	49	15.2	3	14.3	14.3
Providence.....	68	13.9	11	101	15.0	5	14.7	16.0
Richmond.....	57	16.1	7	102	15.1	6	15.8	15.6
White.....	29		2	44		1		
Colored.....	28	( <sup>4</sup> )	5	217	( <sup>4</sup> )	5	( <sup>4</sup> )	( <sup>4</sup> )
Rochester.....	73	11.5	9	82	11.3	5	13.1	11.6
St. Louis.....	259	16.3	23	77	13.7	12	16.4	14.6
St. Paul.....	58	11.0	4	41	12.2	2	11.3	11.9
Salt Lake City <sup>6</sup> .....	39	14.2	4	60	14.1	5	15.7	13.0
San Antonio.....	78	16.9	16		20.8	6	15.8	19.7
San Diego.....	44	14.7	5	101	16.7	1	17.0	18.4
San Francisco.....	207	16.6	5	33	16.4	9	15.3	14.6
Schenectady.....	15	8.1	1	29	7.6	0	8.0	10.7
Seattle.....	117	16.4	5	47	11.9	3	14.0	10.8
Somerville.....	18	8.9	0	0	15.5	5	10.9	11.5
South Bend.....	12	5.8	1	25	8.4	1	6.9	10.3
Spokane.....	39	17.5	5	130	14.9	0	14.5	13.5
Springfield, Mass.....	28	9.6	0	0	15.8	1	12.2	13.5
Syracuse.....	50	12.2	5	59	15.6	5	13.1	14.1
Tacoma.....	30	14.5	2	51	10.7	1	16.0	10.9
Toledo.....	64	11.3	3	28	13.8	4	11.7	13.6
Trenton.....	30	12.6	1	17	19.4	2	21.1	17.9
Utica.....	40	20.4	3	78	22.5	3	16.6	17.4
Washington, D. C.....	167	17.7	8	44	15.6	12	18.1	16.1
White.....	104		5	41		9		
Colored.....	63	( <sup>4</sup> )	3	52	( <sup>4</sup> )	3	( <sup>4</sup> )	( <sup>4</sup> )
Waterbury.....	13	6.7	1	30	12.0	4	9.1	10.6
Wilmington, Del. <sup>7</sup> .....	21	10.3	6	129	15.2	2	14.7	14.2
Worcester.....	64	16.9	1	14	10.9	5	14.5	13.4
Yonkers.....	31	11.6	4	105	11.5	2	10.3	9.1
Youngstown.....	31	9.3	0	0	10.4	4	11.7	9.6

<sup>1</sup> Deaths of nonresidents are included. Stillbirths are excluded.

<sup>2</sup> These rates represent annual rates per 1,000 population, as estimated for 1931 and 1930 by the arithmetical method.

<sup>3</sup> Deaths under 1 year of age per 1,000 live births. Cities left blank are not in the registration area for births.

<sup>4</sup> Data for 76 cities.

<sup>5</sup> Deaths for week ended Friday.

<sup>6</sup> For the cities for which deaths are shown by color, the percentage of colored population in 1920 was as follows: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; Louisville, 17; Memphis, 38; Miami, 31; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

<sup>7</sup> Population Apr. 1, 1930; decreased 1920 to 1930; no estimate made.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended January 24, 1931, and January 25, 1930

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended January 24, 1931, and January 25, 1930*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930
<b>New England States:</b>								
Maine.....	5	4	17	1	20	3	0	0
New Hampshire.....	3	3	-----	9	25	23	0	0
Vermont.....	2	1	-----	-----	8	18	0	0
Massachusetts.....	61	133	114	14	643	216	4	3
Rhode Island.....	8	12	1	-----	-----	2	1	0
Connecticut.....	15	32	140	21	286	23	4	0
<b>Middle Atlantic States:</b>								
New York.....	126	141	1, 140	134	329	407	20	16
New Jersey.....	53	114	744	8	338	221	4	3
Pennsylvania.....	127	217	-----	-----	1, 022	690	8	11
<b>East North Central States:</b>								
Ohio.....	39	34	7	8	140	673	5	3
Indiana.....	64	26	33	-----	-----	49	12	23
Illinois.....	162	218	263	64	905	432	6	11
Michigan.....	48	83	2	3	143	295	6	31
Wisconsin.....	24	24	82	76	172	815	1	6
<b>West North Central States:</b>								
Minnesota.....	8	16	1	-----	28	136	1	0
Iowa.....	8	11	-----	-----	3	295	2	5
Missouri.....	39	33	71	19	1, 109	43	5	14
North Dakota.....	5	1	-----	9	3	17	0	7
South Dakota.....	26	7	1	-----	12	21	0	1
Nebraska.....	8	5	37	17	30	365	1	6
Kansas.....	28	20	12	16	53	266	2	2
<b>South Atlantic States:</b>								
Delaware.....	4	8	1	-----	3	-----	0	0
Maryland <sup>1</sup> .....	25	27	1, 226	24	229	14	0	1
District of Columbia.....	11	20	28	3	25	3	1	0
Virginia.....	-----	-----	-----	-----	-----	-----	3	-----
West Virginia.....	13	19	150	44	30	100	0	0
North Carolina.....	33	42	177	39	163	18	3	12
South Carolina.....	16	12	1, 968	1, 036	27	-----	0	6
Georgia <sup>1</sup> .....	33	14	267	156	108	116	2	0
Florida.....	11	10	42	6	63	12	1	0
<b>East South Central States:</b>								
Kentucky.....	16	-----	14	-----	76	72	7	0
Tennessee.....	15	8	187	158	110	64	2	14
Alabama.....	60	52	87	185	458	21	5	3
Mississippi.....	14	11	-----	-----	-----	-----	1	4

<sup>1</sup> New York City only.

<sup>2</sup> Week ended Friday.

<sup>3</sup> Typhus fever, 1931: 2 cases in Georgia.

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended January 24, 1931, and January 25, 1930—Continued*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930
<b>West South Central States:</b>								
Arkansas.....	14	10	209	171	9	3	3	7
Louisiana.....	21	35	91	27	2	58	1	4
Oklahoma <sup>4</sup> .....	23	22	155	187	74	96	0	4
Texas.....	32	35	102	100	141	94	2	1
<b>Mountain States:</b>								
Montana.....	4	3			2	32	0	1
Idaho.....						86	1	1
Wyoming.....	1	3		8	2	7	3	1
Colorado.....	9	3		1	29	40	0	3
New Mexico.....	4	6	1	5	21	90	0	3
Arizona.....	14	9	22	52	125	1	9	13
Utah <sup>1</sup> .....	3	4	1	2	2	98	1	8
<b>Pacific States:</b>								
Washington.....	25	13			62	123	2	4
Oregon.....	5	13	56	69	115	21	0	1
California.....	62	82	93	48	546	628	6	10

  

Division and State	Pol iomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930
<b>New England States:</b>								
Maine.....	4	0	36	92	0	0	2	4
New Hampshire.....	0	0	5	25	0	0	0	0
Vermont.....	0	0	2	15	0	5	1	0
Massachusetts.....	3	1	325	349	6	0	0	12
Rhode Island.....	1	0	65	25	0	0	1	0
Connecticut.....	0	0	74	138	0	0	1	0
<b>Middle Atlantic States:</b>								
New York.....	0	3	739	519	1	16	6	15
New Jersey.....	0	0	252	233	0	0	1	4
Pennsylvania.....	2	0	580	504	2	5	1	18
<b>East North Central States:</b>								
Ohio.....	1	1	563	205	73	271	8	7
Indiana.....	1	0	391	217	108	254	0	1
Illinois.....	4	0	521	517	51	116	7	8
Michigan.....	1	1	381	284	88	64	4	6
Wisconsin.....	0	0	145	136	4	77	0	0
<b>West North Central States:</b>								
Minnesota.....	2	1	4	136	12	7	3	3
Iowa.....	1	0	89	87	46	150	2	2
Missouri.....	2	0	178	91	24	26	5	0
North Dakota.....	2	1	27	31	10	52	0	0
South Dakota.....	1	0	6	8	38	55	2	1
Nebraska.....	3	3	51	90	28	71	5	0
Kansas.....	0	0	68	123	87	46	1	4
<b>South Atlantic States:</b>								
Delaware.....	0	0	33	17	0	0	0	0
Maryland <sup>2</sup> .....	1	0	82	75	0	0	3	9
District of Columbia.....	0	0	32	20	0	0	1	1
Virginia.....	2	1						
West Virginia.....	0	0	57	30	19	0	12	3
North Carolina.....	1	1	58	54	0	33	1	2
South Carolina.....	1	3	17	26	0	1	4	5
Georgia <sup>3</sup> .....	0	0	68	30	0	0	7	2
Florida.....	0	0	7	12	0	1	2	5
<b>East South Central States:</b>								
Kentucky.....	0	0	114	46	16	16	9	5
Tennessee.....	0	0	42	17	5	11	3	10
Alabama.....	3	2	62	51	6	4	14	11
Mississippi.....	0	0	25	19	12	0	2	2

<sup>1</sup> Week ended Friday.

<sup>2</sup> Typhus fever, 1931: 2 cases in Georgia.

<sup>4</sup> Figures for 1931 are exclusive of Oklahoma City and Tulsa.

**Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended January 24, 1931, and January 25, 1930—Continued**

Division and State	Pollomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930	Week ended Jan. 24, 1931	Week ended Jan. 25, 1930
<b>West South Central States:</b>								
Arkansas.....	1	0	35	33	42	20	8	2
Louisiana.....	1	0	28	22	10	6	2	2
Oklahoma <sup>1</sup> .....	0	0	29	39	92	100	10	3
Texas.....	0	0	65	47	31	55	7	1
<b>Mountain States:</b>								
Montana.....	0	0	59	39	2	6	2	1
Idaho.....	1	0	20	16	2	11	0	5
Wyoming.....	1	0	50	16	2	3	0	0
Colorado.....	0	0	45	24	19	26	1	3
New Mexico.....	0	0	7	11	2	2	0	0
Arizona.....	0	0	4	16	14	26	1	1
Utah <sup>2</sup> .....	0	0	6	9	1	1	1	3
<b>Pacific States:</b>								
Washington.....	1	1	50	87	36	93	2	2
Oregon.....	1	0	14	54	19	26	0	0
California.....	7	1	142	348	82	101	6	3

<sup>1</sup> Figures for 1931 are exclusive of Oklahoma City and Tulsa.

<sup>2</sup> Week ending Friday.

**SUMMARY OF MONTHLY REPORTS FROM STATES**

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week.

State	Menin-gococ-cus menin-gitis	Diph-theria	Influ-enza	Ma-laria	Mea-sles	Pel-lagra	Polio-my-e-litis	Scarlet fever	Small-pox	Ty-phoid fever
<i>November, 1930</i>										
Arizona.....	3	26	7	1	202	2	3	11	2	4
Florida.....	0	76	11	27	36	1	0	32	1	4
<i>December, 1930</i>										
Arkansas.....	1	52	186	57	6	83	2	62	17	70
California.....	38	305	306	2	1,052	6	76	487	257	52
Idaho.....	13	8	1				2	63	0	1
Illinois.....	39	684	89	17	1,152		25	1,591	199	90
Indiana.....	20	203	26		543		2	776	242	24
Louisiana.....	9	134	85	32	8	20	3	72	38	81
Maryland.....	2	166	74	1	107	2	1	392	0	40
Michigan.....	31	302	18	2	299	1	14	1,121	149	58
Minnesota.....	4	78	3		49		22	285	50	6
Missouri.....	16	212	49	4	2,625		3	530	41	34
New York.....	49	547			746		18	2,275	27	81
North Carolina.....	8	337	82		241	86	4	318	5	15
Ohio.....	14	324	75	1	317		30	2,234	271	95
Oregon.....		34	87		159		3	47	57	2
Pennsylvania.....	26	597			1,911	1	8	2,004	0	96
Rhode Island.....	1	55			6		0	160	0	1
South Carolina.....		319	2,358	640	9	139	2	83	5	50
Texas.....	1	284	183	417		2	13	188	0	34
West Virginia.....	3	89	176		88	1	3	214	54	58

*November, 1930*

	Cases	Mumps:	Cases
<b>Chicken pox:</b>		Arizona.....	9
Arizona.....	26	Florida.....	13
Florida.....	23	<b>Trachoma:</b>	
<b>Dysentery:</b>		Arizona.....	13
Arizona.....	2	<b>Typhus fever:</b>	
Florida.....	5	Florida.....	2
<b>Lethargic encephalitis:</b>		<b>Whooping cough:</b>	
Arizona.....		Arizona.....	34
Florida.....	2	Florida.....	16

December, 1930

	Cases	Lethargic encephalitis:	Cases
<b>Anthrax:</b>		California.....	1
New York.....	2	Illinois.....	6
Pennsylvania.....	2	Louisiana.....	1
<b>Chicken pox:</b>		Michigan.....	2
Arkansas.....	109	New York.....	3
California.....	1,566	Ohio.....	5
Illinois.....	1,811	Oregon.....	2
Indiana.....	578	Pennsylvania.....	7
Louisiana.....	27	South Carolina.....	1
Maryland.....	725	<b>Mumps:</b>	
Michigan.....	1,938	Arkansas.....	26
Minnesota.....	697	California.....	779
Missouri.....	413	Illinois.....	1,154
New York.....	3,179	Indiana.....	46
North Carolina.....	843	Louisiana.....	5
Ohio.....	2,914	Maryland.....	76
Oregon.....	165	Michigan.....	289
Pennsylvania.....	4,685	Missouri.....	63
Rhode Island.....	159	New York.....	921
South Carolina.....	202	Ohio.....	445
West Virginia.....	206	Oregon.....	316
<b>Diarrhea:</b>		Pennsylvania.....	1,040
Maryland.....	10	Rhode Island.....	12
South Carolina.....	291	South Carolina.....	70
<b>Diarrhea and enteritis:</b>		<b>Ophthalmia neonatorum:</b>	
Ohio (under 2 years).....	15	California.....	1
<b>Dysentery:</b>		Illinois.....	7
California (amebic).....	10	Maryland.....	2
California (bacillary).....	15	New York.....	6
Illinois.....	7	Ohio.....	64
Louisiana.....	4	Pennsylvania.....	23
Maryland.....	3	Rhode Island.....	2
New York.....	20	South Carolina.....	13
Ohio.....	1	<b>Paratyphoid fever:</b>	
Pennsylvania.....	2	California.....	1
<b>Food poisoning:</b>		Illinois.....	1
California.....	1	Louisiana.....	1
Ohio.....	3	Minnesota.....	1
<b>German measles:</b>		New York.....	4
California.....	32	South Carolina.....	2
Illinois.....	18	<b>Puerperal septicemia:</b>	
Maryland.....	26	Illinois.....	6
New York.....	153	New York.....	10
North Carolina.....	135	Ohio.....	7
Ohio.....	24	Pennsylvania.....	21
Pennsylvania.....	77	<b>Rabies in animals:</b>	
Rhode Island.....	2	California.....	108
<b>Granuloma, coccidioidal:</b>		Louisiana.....	8
California.....	1	Maryland.....	1
<b>Hookworm disease:</b>		Missouri.....	4
Arkansas.....	2	New York.....	9
California.....	1	Oregon.....	1
Louisiana.....	40	Rhode Island.....	1
South Carolina.....	55	South Carolina.....	11
<b>Impetigo contagiosa:</b>		<b>Scabies:</b>	
Maryland.....	6	Maryland.....	6
Oregon.....	12	Oregon.....	15
<b>Jaundice, epidemic:</b>		<b>Septic sore throat:</b>	
Maryland.....	21	Illinois.....	5
<b>Lead poisoning:</b>		Indiana.....	2
Illinois.....	3	Maryland.....	13
Ohio.....	5	Michigan.....	32
Pennsylvania.....	1	Missouri.....	13
<b>Leprosy:</b>		New York.....	34
California.....	3	North Carolina.....	3
Louisiana.....	1	Ohio.....	85
Pennsylvania.....	1	Oregon.....	3
		Rhode Island.....	1

	Cases	Typhus fever—Continued.	Cases
<b>Tetanus:</b>		<b>North Carolina</b> .....	3
California.....	6	<b>South Carolina</b> .....	4
Illinois.....	14	<b>Undulant fever:</b>	
Louisiana.....	4	California.....	7
Maryland.....	1	Illinois.....	4
Missouri.....	1	Louisiana.....	3
New York.....	5	Maryland.....	1
Ohio.....	2	Michigan.....	1
Pennsylvania.....	1	Minnesota.....	9
<b>Trachoma:</b>		Missouri.....	4
Arkansas.....	4	New York.....	21
California.....	19	Ohio.....	9
Illinois.....	9	Oregon.....	2
Missouri.....	153	<b>Vincent's angina:</b>	
New York.....	3	Maryland.....	10
Ohio.....	6	New York <sup>1</sup> .....	82
Oregon.....	1	Oregon.....	6
<b>Trichinosis:</b>		<b>Whooping cough:</b>	
California.....	2	Arkansas.....	14
Illinois.....	1	California.....	442
Pennsylvania.....	10	Illinois.....	511
<b>Tularaemia:</b>		Indiana.....	70
Illinois.....	89	Louisiana.....	41
Indiana.....	5	Maryland.....	57
Louisiana.....	2	Michigan.....	562
Maryland.....	6	Minnesota.....	102
Missouri.....	4	Missouri.....	72
New York.....	2	New York.....	1,769
North Carolina.....	3	North Carolina.....	208
Ohio.....	61	Ohio.....	327
South Carolina.....	1	Oregon.....	53
<b>Typhus fever:</b>		Pennsylvania.....	731
California.....	1	Rhode Island.....	39
Maryland.....	2	South Carolina.....	81
New York.....	3	West Virginia.....	101

<sup>1</sup> Exclusive of New York City.

**GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES**

The 98 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 33,480,000. The estimated population of the 91 cities reporting deaths is more than 31,935,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Weeks ended January 17, 1931, and January 18, 1930*

	1931	1930	Estimated expectancy
<i>Cases reported</i>			
<b>Diphtheria:</b>			
46 States.....	1,331	1,632	
98 cities.....	473	679	1,004
<b>Measles:</b>			
45 States.....	5,959	6,220	
98 cities.....	2,080	1,282	
<b>Meningococcus meningitis:</b>			
45 States.....	144	240	
98 cities.....	68	106	
<b>Poliomyelitis:</b>			
46 States.....	69	21	
<b>Scarlet fever:</b>			
46 States.....	5,265	4,782	
98 cities.....	2,026	1,718	1,434
<b>Smallpox:</b>			
46 States.....	1,375	1,895	
98 cities.....	103	203	62
<b>Typhoid fever:</b>			
46 States.....	150	164	
98 cities.....	20	34	32

## Weeks ended January 17, 1931, and January 18, 1930—Continued

	1931	1930	Estimated expectancy
<i>Deaths reported</i>			
Influenza and pneumonia: 91 cities.....	1, 559	1, 021	-----
Smallpox: 91 cities.....	1	0	-----
Omaha, Nebr.....	1	0	-----

## City reports for week ended January 17, 1931

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence the number of cases of the disease under consideration that may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding weeks of the preceding years. When the reports include several epidemics, or when for other reasons the median is unsatisfactory, the epidemic periods are excluded, and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If the reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1922 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviation from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
<b>NEW ENGLAND</b>								
Maine:								
Portland.....	19	1	0	-----	0	0	6	5
New Hampshire:								
Concord.....	0	0	0	-----	0	0	0	2
Nashua.....	0	0	0	-----	0	0	0	0
Vermont:								
Barre.....	4	0	0	-----	0	1	0	0
Massachusetts:								
Boston.....	81	36	17	3	1	38	7	40
Fall River.....	9	5	3	1	1	1	3	2
Springfield.....	16	5	4	-----	0	5	7	2
Worcester.....	19	5	4	5	0	2	2	2
Rhode Island:								
Pawtucket.....	9	2	0	-----	0	1	0	1
Providence.....	8	10	5	-----	0	0	0	6
Connecticut:								
Bridgeport.....	1	6	0	4	2	1	3	3
Hartford.....	6	7	1	-----	0	55	1	0
New Haven.....	17	1	4	30	0	25	30	3
<b>MIDDLE ATLANTIC</b>								
New York:								
Buffalo.....	21	13	14	-----	0	21	37	23
New York.....	232	208	79	1, 005	109	146	36	457
Rochester.....	12	8	6	1	0	2	3	2
Syracuse.....	38	4	0	-----	0	7	0	6
New Jersey:								
Camden.....	3	6	3	1	1	45	3	3
Newark.....	72	22	7	172	1	5	12	22
Trenton.....	4	3	2	-----	0	0	3	3
Pennsylvania:								
Philadelphia.....	231	71	11	40	18	65	30	117
Pittsburgh.....	71	22	4	2	3	24	18	61
Reading.....	10	2	0	-----	0	39	53	2
<b>EAST NORTH CENTRAL</b>								
Ohio:								
Cincinnati.....	5	11	1	-----	3	19	15	24
Cleveland.....	157	32	15	5	2	5	106	20
Columbus.....	23	5	4	-----	0	4	3	9
Toledo.....	63	10	8	-----	0	2	33	3

City reports for week ended January 17, 1931—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
<b>EAST NORTH CENTRAL—continued</b>								
Indiana:								
Fort Wayne.....	2	5	3	-----	0	25	0	5
Indianapolis.....	37	10	6	-----	1	14	8	17
South Bend.....	1	1	0	-----	1	0	0	2
Terre Haute.....	1	1	0	-----	1	0	0	2
Illinois:								
Chicago.....	98	116	86	10	4	37	56	70
Springfield.....	0	1	0	1	0	8	0	6
Michigan:								
Detroit.....	177	60	28	-----	1	11	29	33
Flint.....	22	4	6	-----	0	6	2	4
Grand Rapids.....	11	1	0	-----	0	0	0	2
Wisconsin:								
Kenosha.....	26	2	0	-----	0	0	23	0
Madison.....	73	0	4	-----	0	0	37	0
Milwaukee.....	119	18	5	3	2	15	254	10
Racine.....	36	2	3	-----	0	0	1	0
Superior.....	3	1	0	-----	0	0	0	0
<b>WEST NORTH CENTRAL</b>								
Minnesota:								
Duluth.....	9	0	0	-----	0	0	0	2
Minneapolis.....	33	22	7	-----	1	5	80	15
St. Paul.....	51	8	1	-----	2	0	4	8
Iowa:								
Davenport.....	1	1	0	-----	-----	2	0	-----
Des Moines.....	0	2	1	-----	-----	0	2	-----
Sioux City.....	11	1	4	-----	-----	1	6	-----
Waterloo.....	12	0	0	-----	-----	1	0	-----
Missouri:								
Kansas City.....	36	7	10	-----	1	3	0	20
St. Joseph.....	0	1	1	-----	0	0	0	2
St. Louis.....	35	43	14	1	-----	942	14	-----
North Dakota:								
Fargo.....	9	0	0	-----	0	0	3	0
Grand Forks.....	0	0	0	-----	-----	0	2	-----
South Dakota:								
Sioux Falls.....	0	0	0	-----	-----	0	0	-----
Nebraska:								
Omaha.....	16	5	3	-----	0	1	4	5
Kansas:								
Topeka.....	14	3	2	2	2	1	0	8
Wichita.....	12	3	1	-----	0	2	0	12
<b>SOUTH ATLANTIC</b>								
Delaware:								
Wilmington.....	6	2	0	-----	0	1	2	5
Maryland:								
Baltimore.....	171	25	7	65	3	128	37	38
Cumberland.....	0	1	0	-----	0	1	0	2
Frederick.....	0	0	0	-----	0	0	0	0
District of Columbia:								
Washington.....	29	18	10	10	2	17	0	20
Virginia:								
Lynchburg.....	8	1	0	-----	1	0	1	6
Norfolk.....	12	3	1	32	0	0	1	8
Richmond.....	1	6	5	2	4	39	1	3
Roanoke.....	7	2	0	-----	3	0	0	6
West Virginia:								
Charleston.....	5	1	0	-----	0	0	1	3
Wheeling.....	9	1	0	-----	0	1	0	2
North Carolina:								
Raleigh.....	10	1	1	-----	1	1	0	2
Wilmington.....	0	1	0	-----	0	0	0	1
Winston-Salem.....	16	1	0	2	1	0	2	4
South Carolina:								
Charleston.....	2	1	1	121	2	7	1	9
Columbia.....	15	1	1	-----	0	2	7	12
Greenville.....	1	0	0	-----	0	0	1	0

## City reports for week ended January 17, 1931—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
<b>SOUTH ATLANTIC—continued</b>								
Georgia:								
Atlanta.....	0	5	7	39	1	45	0	6
Brunswick.....	2	0	0		0	0	0	0
Savannah.....	1	2	1	12	2	0	2	1
Florida:								
Miami.....	11	2	3		0	0	1	3
St. Petersburg.....	0	0			0			0
Tampa.....	6	1	2		1	11	0	0
<b>EAST SOUTH CENTRAL</b>								
Kentucky:								
Covington.....	0	1	1		0	1	0	1
Tennessee:								
Memphis.....	52	5	2		6	2	9	11
Nashville.....	4	3	0		1	1	0	12
Alabama:								
Birmingham.....	8	3	5	20	1	167	3	9
Mobile.....	2	1	2		2	0	0	3
Montgomery.....	13	1	2	1		0	0	
<b>WEST SOUTH CENTRAL</b>								
Arkansas:								
Fort Smith.....	0	0	1			0	0	
Little Rock.....	7	1	2	1		0	0	2
Louisiana:								
New Orleans.....	7	13	10	18	19	0	0	22
Shreveport.....	3	2	0		0	1	0	3
Oklahoma:								
Muskogee.....	0	1	0		0	0	0	4
Oklahoma City.....	1	2	3		0	3	0	9
Tulsa.....	12	3	1			5	0	
Texas:								
Dallas.....	14	9	4		1	1	7	7
Fort Worth.....	1	5	9		1	1	0	7
Galveston.....	1	1	7		0	0	0	1
Houston.....	14	8	7		1	0	0	16
San Antonio.....	2	3	1		2	0	1	15
<b>MOUNTAIN</b>								
Montana:								
Billings.....	0	0	0		0	0	0	1
Great Falls.....	1	0	0		0	0	0	1
Helena.....	1	0	0		0	0	0	0
Missoula.....	0	0	0		0	0	0	0
Idaho:								
Boise.....	1	0	0		0	0	0	0
Colorado:								
Denver.....	57	9	6		4	25	14	16
Pueblo.....	7	2	0		0	17	1	5
New Mexico:								
Albuquerque.....	6	0	2		1	1	0	1
Arizona:								
Phoenix.....	0	0	0		0	1	0	1
Utah:								
Salt Lake City.....	8	4	0		0	1	7	6
Nevada:								
Reno.....	0	0	0		0	0	0	2
<b>PACIFIC</b>								
Washington:								
Seattle.....	25	4	1			2	33	
Spokane.....	16	2	0			4	0	
Tacoma.....	10	3	2		0	2	1	3
Oregon:								
Portland.....	18	11	1	1	0	4	12	7
Salem.....	0	0	0		0	16	0	0
California:								
Los Angeles.....	52	41	13	38	2	20	14	36
Sacramento.....	7	2	3		0	0	4	7
San Francisco.....	50	16	5	5	2	0	6	3

City reports for week ended January 17, 1931—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases, re- ported	Cases, esti- mated expect- ancy	Cases, re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases, re- ported	Deaths re- ported		
<b>NEW ENGLAND</b>											
<b>Maine:</b>											
Portland.....	4	3	0	0	0	1	1	0	0	39	32
<b>New Hampshire:</b>											
Concord.....	0	0	0	0	0	0	0	0	0	0	8
Nashua.....	0	2	0	0	0	0	0	0	0	0	0
<b>Vermont:</b>											
Barre.....	0	1	0	0	0	1	0	0	0	5	2
<b>Massachusetts:</b>											
Boston.....	81	101	0	0	0	13	0	0	0	23	250
Fall River.....	3	12	0	0	0	1	1	0	0	4	35
Springfield.....	9	11	0	0	0	0	0	0	0	2	27
Worcester.....	12	33	0	0	0	3	0	0	0	2	64
<b>Rhode Island:</b>											
Pawtucket.....	2	22	0	0	0	0	0	0	0	0	20
Providence.....	12	19	0	0	0	2	1	0	0	9	68
<b>Connecticut:</b>											
Bridgeport.....	10	6	0	0	0	1	0	0	0	0	34
Hartford.....	7	9	0	0	0	1	0	0	0	3	39
New Haven.....	7	7	0	0	0	2	0	0	0	13	32
<b>MIDDLE ATLANTIC</b>											
<b>New York:</b>											
Buffalo.....	27	23	0	1	0	5	0	0	0	13	159
New York.....	228	266	0	0	0	119	7	4	0	186	2134
Rochester.....	9	89	0	0	0	0	0	0	0	12	69
Syracuse.....	13	18	0	0	0	1	1	0	0	13	50
<b>New Jersey:</b>											
Camden.....	7	8	0	0	0	2	1	0	0	2	33
Newark.....	33	29	0	0	0	7	0	0	0	36	117
Trenton.....	5	16	0	0	0	1	0	0	0	3	30
<b>Pennsylvania:</b>											
Philadelphia.....	99	134	1	0	0	35	3	0	0	31	622
Pittsburgh.....	36	43	0	0	0	10	0	0	0	12	216
Reading.....	4	5	0	0	0	0	0	0	0	0	25
<b>EAST NORTH CENTRAL</b>											
<b>Ohio:</b>											
Cincinnati.....	20	36	1	0	0	7	0	0	0	1	168
Cleveland.....	45	94	0	0	0	16	1	2	0	29	204
Columbus.....	10	16	1	0	0	6	9	0	0	0	77
Toledo.....	13	17	0	0	0	5	0	0	0	9	64
<b>Indiana:</b>											
Fort Wayne.....	6	1	1	0	0	0	0	0	0	0	30
Indianapolis.....	10	64	4	8	0	3	0	0	0	17	12
South Bend.....	4	3	1	0	0	0	0	0	0	5	25
Terre Haute.....	3	2	0	0	0	0	0	0	0	0	0
<b>Illinois:</b>											
Chicago.....	133	243	1	2	0	51	2	1	0	56	715
Springfield.....	2	9	0	0	0	0	0	0	0	0	26
<b>Michigan:</b>											
Detroit.....	106	134	2	2	0	13	0	0	0	86	278
Flint.....	13	13	1	0	0	2	0	0	0	10	27
Grand Rapids.....	12	23	0	4	0	2	0	0	0	5	34
<b>Wisconsin:</b>											
Kenosha.....	2	1	1	0	0	1	0	0	0	0	6
Madison.....	5	2	0	0	0	0	0	0	0	6	114
Milwaukee.....	35	10	1	0	0	4	1	0	0	41	13
Racine.....	5	6	0	0	0	0	0	0	0	13	13
Superior.....	3	1	0	0	0	0	0	0	0	0	13
<b>WEST NORTH CENTRAL</b>											
<b>Minnesota:</b>											
Duluth.....	11	0	0	0	0	2	0	0	0	7	27
Minneapolis.....	53	6	2	0	0	1	1	2	0	18	105
St. Paul.....	32	7	1	0	0	1	0	0	0	7	0
<b>Iowa:</b>											
Davenport.....	1	6	0	17	0	0	0	0	0	0	0
Des Moines.....	10	5	2	20	0	0	0	0	0	0	39
Sioux City.....	2	23	0	0	0	0	0	0	0	1	0
Waterloo.....	2	0	1	0	0	0	0	0	0	3	0
<b>Missouri:</b>											
Kansas City.....	18	11	0	2	0	8	0	0	0	8	121
St. Joseph.....	2	4	1	0	0	0	0	0	0	0	25
St. Louis.....	39	100	1	0	0	12	1	0	0	11	269

## City reports for week ended January 17, 1931—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths all causes
	Cases, esti- mated expect- ancy	Cases, re- ported	Cases, esti- mated expect- ancy	Cases, re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases, re- ported	Deaths re- ported		
<b>WEST NORTH CENTRAL—continued</b>											
North Dakota:											
Fargo.....	3	0	0	0	0	0	0	0	0	0	-----
Grand Forks.....	0	1	0	0	-----	-----	0	0	-----	0	-----
South Dakota:											
Sioux Falls.....	2	1	1	15	-----	-----	0	0	-----	0	6
Nebraska:											
Omaha.....	5	13	2	31	1	1	0	0	0	0	65
Kansas:											
Topeka.....	3	1	1	0	0	0	0	0	0	0	21
Wichita.....	7	3	0	18	0	0	0	0	0	2	33
<b>SOUTH ATLANTIC</b>											
Delaware:											
Wilmington.....	6	8	0	0	0	0	0	0	0	2	21
Maryland:											
Baltimore.....	35	56	0	0	0	12	1	3	0	23	222
Cumberland.....	1	4	0	0	0	0	0	0	0	0	8
Frederick.....	0	2	0	0	0	0	0	0	0	0	3
District of Colum- bia:											
Washington.....	26	26	1	0	0	10	0	0	0	3	165
Virginia:											
Lynchburg.....	1	0	0	0	0	1	0	0	0	0	19
Norfolk.....	3	4	0	0	0	0	0	0	0	13	-----
Richmond.....	6	12	0	0	0	5	0	0	0	1	56
Roanoke.....	3	4	0	0	0	0	1	0	0	0	24
West Virginia:											
Charleston.....	1	0	0	0	0	2	0	0	0	0	22
Wheeling.....	2	7	0	0	0	0	1	0	0	0	6
North Carolina:											
Raleigh.....	1	1	1	0	0	0	0	0	0	13	13
Wilmington.....	1	0	0	0	0	0	0	0	0	0	8
Winston-Salem.....	2	3	1	0	0	1	0	0	0	2	-----
South Carolina:											
Charleston.....	1	2	0	0	0	0	0	0	0	0	33
Columbia.....	0	0	0	0	0	3	0	0	0	0	45
Greenville.....	0	1	0	1	0	0	0	0	0	0	-----
Georgia:											
Atlanta.....	5	29	2	0	0	5	0	0	0	2	82
Brunswick.....	0	0	0	0	0	0	0	0	0	0	8
Savannah.....	1	0	0	0	0	0	2	0	0	0	8
Florida:											
Miami.....	3	3	0	0	0	0	1	0	0	0	31
St. Petersburg.....	0	0	0	0	0	2	0	0	0	0	16
Tampa.....	1	0	0	0	0	1	0	0	0	0	29
<b>EAST SOUTH CENTRAL</b>											
Kentucky:											
Covington.....	1	19	0	0	0	1	0	0	0	0	20
Tennessee:											
Memphis.....	7	36	1	3	0	4	1	6	1	3	79
Nashville.....	2	8	0	0	0	3	0	2	0	1	54
Alabama:											
Birmingham.....	4	13	1	0	0	5	0	1	0	2	70
Mobile.....	1	3	0	0	0	1	0	0	0	0	20
Montgomery.....	1	1	0	0	-----	-----	0	0	-----	0	-----
<b>WEST SOUTH CENTRAL</b>											
Arkansas:											
Fort Smith.....	1	2	0	0	-----	-----	0	0	-----	1	-----
Little Rock.....	1	1	0	0	0	1	0	0	0	0	-----
Louisiana:											
New Orleans.....	8	19	0	2	0	13	3	0	0	1	188
Shreveport.....	1	1	1	0	0	1	0	1	0	0	29
Oklahoma:											
Muskogee.....	1	0	2	0	0	0	0	0	0	0	15
Oklahoma City.....	3	8	1	1	0	5	1	0	0	0	45
Tulsa.....	2	8	1	4	-----	-----	0	0	-----	2	-----



## City reports for week ended January 17, 1931—Continued

Division, State, and city	Meningo- coccus meningitis		Lethargic en- cephalitis		Pellagra		Pollomyelitis (infan- tile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases esti- mated expect- ancy	Cases	Deaths
<b>EAST NORTH CENTRAL</b>									
Ohio:									
Cincinnati.....	2	2	0	0	0	0	0	1	0
Cleveland.....	2	0	1	1	0	0	0	1	0
Columbus.....	0	0	1	1	1	1	0	0	0
Indiana:									
Indianapolis.....	3	0	0	0	0	0	0	0	0
South Bend.....	1	0	0	0	0	0	0	0	0
Illinois:									
Chicago.....	10	7	0	0	0	0	1	3	2
Michigan:									
Detroit 1.....	2	1	0	0	0	0	0	0	0
Wisconsin:									
Milwaukee.....	0	1	0	0	0	0	0	2	0
<b>WEST NORTH CENTRAL</b>									
Minnesota:									
Minneapolis.....	2	0	0	0	0	0	0	2	0
Missouri:									
Kansas City.....	1	0	0	0	0	0	0	0	0
St. Louis.....	1	0	0	0	0	0	0	0	0
Nebraska:									
Omaha.....	2	2	0	0	0	0	0	0	0
<b>SOUTH ATLANTIC 3</b>									
North Carolina:									
Raleigh.....	0	0	0	0	1	0	0	0	0
South Carolina:									
Charleston 3.....	0	0	0	0	1	1	0	0	0
Columbia.....	1	1	0	0	0	0	0	0	0
Georgia:									
Atlanta 1.....	2	2	0	0	1	1	0	0	0
Savannah.....	0	0	0	0	1	1	0	0	0
<b>EAST SOUTH CENTRAL</b>									
Tennessee:									
Memphis.....	0	2	0	0	1	0	0	0	0
Alabama:									
Birmingham.....	3	1	0	0	0	0	0	0	0
<b>WEST SOUTH CENTRAL</b>									
Louisiana:									
New Orleans.....	5	1	0	0	1	1	0	0	0
Oklahoma:									
Muskogee.....	0	0	0	0	4	0	0	0	0
Texas:									
Dallas.....	0	0	0	0	1	1	0	0	0
<b>MOUNTAIN</b>									
Colorado:									
Denver.....	1	1	0	0	0	0	0	0	0
New Mexico:									
Albuquerque.....	2	1	0	0	0	0	0	0	0
Arizona:									
Phoenix.....	5	4	0	0	0	0	0	0	0
Utah:									
Salt Lake.....	3	1	0	0	0	0	0	0	0
<b>PACIFIC</b>									
Washington:									
Seattle.....	1	0	0	0	0	0	0	0	0
California:									
Los Angeles.....	4	3	0	0	0	0	1	1	1
Sacramento.....	0	1	0	0	0	0	0	0	0
San Francisco.....	1	1	0	0	0	0	0	3	1

1 Rabies (in man): 1 case and 1 death at Detroit, Mich.

2 Typhus fever: 4 cases; 1 case at Baltimore, Md.; and 3 cases at Atlanta, Ga.

3 Dengue; 3 cases at Charleston, S. C.

The following tables give the rates per 100,000 population for 98 cities for the 5-week period ended January 17, 1931, compared with those for a like period ended January 18, 1930. The population figures used in computing the rates previous to 1931 are approximate estimates. Those used in computing the rates for the weeks ended January 3 and January 4, and subsequent weeks, are estimated midyear populations for 1930 and 1931, respectively, derived from the 1930 census. The 98 cities reporting cases have an estimated aggregate population of more than 33,000,000. The 91 cities reporting deaths have more than 31,500,000 estimated population.

Summary of weekly reports from cities December 14, 1930, to January 17, 1931—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929-30<sup>1</sup>

DIPHtheria CASE RATES

	Week ended—									
	Dec. 20, 1930	Dec. 21, 1929	Dec. 27, 1930	Dec. 28, 1929	Jan. 3, 1931	Jan. 4, 1930	Jan. 10, 1931	Jan. 11, 1930	Jan. 17, 1931	Jan. 18, 1930
98 cities.....	97	128	73	120	78	113	81	114	74	108
New England.....	131	168	69	126	119	141	76	162	91	133
Middle Atlantic.....	65	106	49	113	66	81	62	107	56	89
East North Central.....	117	167	103	167	89	153	97	130	95	126
West North Central.....	87	110	53	67	82	116	98	126	82	110
South Atlantic.....	99	107	79	79	61	94	79	90	69	112
East South Central.....	94	123	94	109	70	102	116	72	70	60
West South Central.....	219	225	153	171	132	181	142	153	108	192
Mountain.....	17	61	67	35	85	53	27	70	52	53
Pacific.....	97	56	47	82	53	99	59	73	47	81

MEASLES CASE RATES

98 cities.....	198	109	185	91	270	126	341	171	324	203
New England.....	248	92	279	90	171	129	469	116	310	172
Middle Atlantic.....	91	59	74	51	98	72	177	109	158	117
East North Central.....	28	94	28	97	54	117	63	152	87	150
West North Central.....	1,387	210	1,250	146	1,871	283	2,156	310	1,829	372
South Atlantic.....	126	39	114	30	318	144	323	128	500	182
East South Central.....	310	0	364	0	896	6	861	12	995	36
West South Central.....	20	133	26	88	24	91	20	293	7	373
Mountain.....	163	139	258	78	441	203	223	150	374	247
Pacific.....	7	418	19	326	24	261	31	443	55	579

SCARLET FEVER CASE RATES

98 cities.....	239	249	227	216	224	242	277	264	316	272
New England.....	321	310	323	299	315	391	414	411	539	397
Middle Atlantic.....	219	176	200	165	224	175	240	218	282	212
East North Central.....	309	355	288	311	255	341	363	350	398	394
West North Central.....	273	255	241	179	235	254	296	221	321	265
South Atlantic.....	190	253	163	144	259	202	311	218	304	216
East South Central.....	223	48	385	75	291	114	396	96	465	90
West South Central.....	80	99	64	122	105	80	68	129	129	125
Mountain.....	292	583	404	322	85	388	328	493	331	344
Pacific.....	97	244	99	246	71	225	64	241	72	237

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimates as of July 1, 1931, 1930, and 1929, respectively.

<sup>2</sup> Shreveport, La., not included.

<sup>3</sup> Salt Lake City, Utah, not included.

<sup>4</sup> Hartford, Conn., and Denver, Colo., not included.

<sup>5</sup> Baltimore, Md., Helena, Mont., and Spokane, Wash., not included.

<sup>6</sup> Hartford, Conn., not included.

<sup>7</sup> Baltimore, Md., not included.

<sup>8</sup> Denver, Colo., not included.

<sup>9</sup> Helena, Mont., not included.

<sup>10</sup> Spokane, Wash., not included.

Summary of weekly reports from cities December 14, 1930, to January 17, 1931—  
Annual rates per 100,000 population, compared with rates for the corresponding  
period of 1929-30—Continued

## SMALLPOX CASE RATES

	Week ended—									
	Dec. 20, 1930	Dec. 21, 1929	Dec. 27, 1930	Dec. 28, 1929	Jan. 3, 1931	Jan. 4, 1930	Jan. 10, 1931	Jan. 11, 1930	Jan. 17, 1931	Jan. 18, 1930
98 cities.....	9	23	7	18	7	19	12	30	16	32
New England.....	0	0	0	0	0	0	0	0	0	0
Middle Atlantic.....	0	0	0	0	0	0	0	0	0	0
East North Central.....	6	31	3	20	5	16	15	27	10	36
West North Central.....	47	60	42	58	46	81	63	91	98	124
South Atlantic.....	0	0	0	2	0	2	7	0	0	6
East South Central.....	0	7	0	7	0	0	6	6	17	0
West South Central.....	16	34	19	27	17	14	37	66	27	38
Mountain.....	112	52	45	44	17	53	9	44	78	53
Pacific.....	12	113	24	77	10	89	10 12	146	29	123

## TYPHOID FEVER CASE RATES

98 cities.....	9	5	7	4	5	3	4	3	5	5
New England.....	9	0	2	2	2	2	5	0	0	5
Middle Atlantic.....	3	4	3	3	4	1	2	3	2	3
East North Central.....	9	3	13	1	4	2	2	2	2	2
West North Central.....	8	8	6	2	2	0	0	2	4	12
South Atlantic.....	11	4	15	9	4	6	7 14	10	10	6
East South Central.....	40	0	20	34	47	6	12	6	52	12
West South Central.....	28	38	0	8	3	0	20	3	14	7
Mountain.....	9	17	11	0	34	9	18	0	9	62
Pacific.....	7	2	7	10	6	8	10 2	4	2	4

## INFLUENZA DEATH RATES

91 cities.....	10	19	12	19	11 15	16	12 24	18	36	19
New England.....	2	9	2	9	7	7	5	0	10	10
Middle Atlantic.....	5	18	11	13	11	9	28	13	59	14
East North Central.....	10	14	8	13	7	15	12	12	9	17
West North Central.....	15	15	9	15	3	27	21	30	18	27
South Atlantic.....	18	13	22	26	20	20	7 26	34	41	24
East South Central.....	37	52	22	30	25	26	44	58	63	39
West South Central.....	25	66	34	94	90	71	76	57	79	60
Mountain.....	17	26	0	26	34	18	44	44	35	26
Pacific.....	12	28	21	19	10	10	22	12	10	12

## PNEUMONIA DEATH RATES

91 cities.....	114	158	130	143	11 150	165	12 183	160	219	151
New England.....	106	157	109	94	154	169	108	176	159	126
Middle Atlantic.....	133	165	132	155	167	170	231	181	311	159
East North Central.....	70	117	95	116	101	114	110	121	124	108
West North Central.....	95	180	115	174	177	197	200	153	212	209
South Atlantic.....	128	184	159	152	227	240	7 248	192	237	186
East South Central.....	125	216	184	194	202	227	265	123	227	142
West South Central.....	147	234	203	234	186	265	238	189	228	221
Mountain.....	215	235	235	209	254	185	249	229	270	256
Pacific.....	156	138	166	104	130	92	134	120	118	137

<sup>1</sup> Shreveport, La., not included.

<sup>2</sup> Salt Lake City, Utah, not included.

<sup>3</sup> Hartford, Conn., and Denver, Colo., not included.

<sup>4</sup> Baltimore, Md., Helena, Mont., and Spokane, Wash., not included.

<sup>5</sup> Hartford, Conn., not included.

<sup>7</sup> Baltimore, Md., not included.

<sup>8</sup> Denver, Colo., not included.

<sup>9</sup> Helena, Mont., not included.

<sup>10</sup> Spokane, Wash., not included.

<sup>11</sup> Hartford, Conn., New York City, N. Y., and Denver, Colo., not included.

<sup>12</sup> Baltimore, Md., and Helena, Mont., not included.

<sup>13</sup> New York City, N. Y., not included.

# FOREIGN AND INSULAR

## PLAGUE ON STEAMSHIP

On January 21, 1931, the Dutch steamship *Buitenzorg* arrived at Winthrop, Mass., with a history of plague in a member of the crew. The patient joined the ship at Surabaya. Three days later he became ill, and on December 1 he was taken ashore at Batavia where a diagnosis of bubonic plague was made.

### CANADA

*Provinces—Communicable diseases—Week ended January 17, 1931.*—The Department of Pensions and National Health of Canada reports cases of certain communicable diseases for the week ended January 17, 1931, as follows:

Province	Cerebrospinal fever	Influenza	Smallpox	Typhoid fever
Prince Edward Island <sup>1</sup> .....	-----	-----	-----	-----
Nova Scotia.....	1	9	-----	-----
New Brunswick.....	-----	-----	-----	1
Quebec.....	-----	-----	-----	11
Ontario.....	1	-----	10	1
Manitoba.....	-----	-----	-----	3
Saskatchewan.....	-----	-----	7	-----
Alberta.....	-----	-----	-----	1
British Columbia.....	-----	2	-----	1
Total.....	2	11	17	13

<sup>1</sup> No case of any disease included in the table was reported during the week.

*Ontario Province—Communicable diseases—Four weeks ended December 27, 1930.*—During the four weeks ended December 27, 1930, and the corresponding period of the year 1929, certain communicable diseases were reported in the Province of Ontario, Canada, as follows:

Disease	4 weeks, 1929		4 weeks, 1930	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis.....	4	2	2	5
Chicken pox.....	1,550	-----	1,196	-----
Diphtheria.....	267	13	355	14
Dysentery.....	-----	-----	1	1
Erysipelas.....	-----	-----	1	-----
German measles.....	73	-----	26	-----
Gonorrhoea.....	141	-----	172	-----
Influenza.....	6	9	14	4
Lethargic encephalitis.....	1	-----	-----	-----
Measles.....	384	-----	83	-----
Mumps.....	113	-----	448	-----
Paratyphoid fever.....	1	-----	-----	-----
Pneumonia.....	-----	148	-----	126
Poliomyelitis.....	6	1	9	-----
Scarlet fever.....	585	7	612	1
Septic sore throat.....	2	-----	296	5
Smallpox.....	55	-----	14	-----
Syphilis.....	159	-----	143	-----
Tetanus.....	2	2	-----	-----
Tuberculosis.....	71	30	136	29
Typhoid fever.....	22	-----	50	2
Undulant fever.....	-----	-----	2	-----
Whooping cough.....	283	2	338	4

<sup>1</sup> The cases of smallpox were distributed as follows: Toronto, 2; Ottawa, 1; and Sudbury, 1.

*Quebec Province—Communicable diseases—Week ended January 17, 1931.*—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the week ended January 17, 1931, as follows:

Disease	Cases	Disease	Cases
Chicken pox.....	145	Mumps.....	20
Diphtheria.....	51	Scarlet fever.....	81
Erysipelas.....	4	Tuberculosis.....	64
German measles.....	1	Typhoid fever.....	10
Measles.....	45	Whooping cough.....	57

### CZECHOSLOVAKIA

*Communicable diseases—November, 1930.*—During the month of November, 1930, certain communicable diseases were reported in the Republic of Czechoslovakia, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax.....	2	—	Puerperal fever.....	38	15
Cerebrospinal meningitis.....	11	4	Rabies.....	1	1
Diphtheria.....	2,796	174	Scarlet fever.....	2,063	44
Dysentery.....	47	5	Trachoma.....	249	—
Malaria.....	3	—	Typhoid fever.....	582	51
Paratyphoid fever.....	22	—	Typhus fever.....	16	—

### ITALY

*Communicable diseases—Four weeks ended November 2, 1930.*—During the four weeks ended November 2, 1930, cases of certain communicable diseases were reported in Italy as follows:

Disease	Oct. 6-12, 1930		Oct. 13-19, 1930		Oct. 20-26, 1930		Oct. 27-Nov. 2, 1930	
	Cases	Com-munes affected	Cases	Com-munes affected	Cases	Com-munes affected	Cases	Com-munes affected
Anthrax.....	45	37	32	31	40	34	30	29
Cerebrospinal meningitis.....	10	8	12	10	4	3	6	6
Chicken pox.....	67	40	96	49	84	48	110	67
Diphtheria and croup.....	829	367	756	379	770	359	868	401
Dysentery.....	15	9	14	9	6	6	15	9
Lethargic encephalitis.....	2	2	—	—	9	8	2	2
Measles.....	518	160	605	154	676	166	921	191
Poliomyelitis.....	30	28	24	17	34	25	18	17
Rabies.....	—	—	—	—	—	—	2	1
Scarlet fever.....	487	194	580	226	506	200	652	242
Typhoid fever.....	1,383	596	1,110	505	731	361	834	434

### JAMAICA

*Communicable diseases—Four weeks ended January 3, 1931.*—During the four weeks ended January 3, 1931, cases of certain communi-

cable diseases were reported in Kingston, Jamaica, and in the Island of Jamaica outside of Kingston, as follows:

Disease	Kingston	Other localities	Disease	Kingston	Other localities
Cerebrospinal meningitis.....		1	Leprosy.....		3
Chicken pox.....	1		Scarlet fever.....	2	5
Diphtheria.....		2	Tuberculosis.....	33	39
Dysentery.....	1	1	Typhoid fever.....	18	49

### LATVIA

*Communicable diseases—November, 1930.*—During the month of November, 1930, cases of certain communicable diseases were reported in the Republic of Latvia, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	2	Puerperal fever.....	11
Diphtheria.....	99	Scarlet fever.....	152
Erysipelas.....	47	Tetanus.....	1
Influenza.....	274	Trachoma.....	102
Measles.....	49	Typhoid fever.....	89
Mumps.....	130	Whooping cough.....	146
Poliomyelitis.....	5		

### PORTO RICO

*San Juan—Communicable diseases—Five weeks ended December 27, 1930.*—During the five weeks ended December 27, 1930, cases of certain communicable diseases were reported in San Juan, Porto Rico, as follows:

Disease	Cases	Disease	Cases
Diphtheria.....	6	Trachoma.....	1
Malaria.....	13	Whooping cough.....	26
Tetanus.....	1		





Place	June, 1930	July, 1930	August, 1930	September, 1930			October, 1930			November, 1930			Dec. 1-10 1930
				1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-30	
Samar.....	18	4	7	6	3	4	4	4	4	2	1	12	2
Sorsogon.....	16	2	7	5	1	4	4	4	4	1	1	7	1
Surigao.....	28	1	( <sup>1</sup> )			4							
Tarlac.....	17	2											
Siam.....	3		4	3		1	2	1	1	2		2	1
Bangkok.....	2		1	3		1	2	1	1	2		2	1
	1		3	1		1	2	1	1	1		2	2
	1		2	1		2	1	2	1	2		1	1
	1	1	2	1		2	1	2	1	1		1	1
On vessel: S. S. Malwa from Shanghai.....		1											

## Indo-China (French) (see also table above):

Annam.....	C	16	1	3									
Cambodia.....	C	144	43	69	23	13	2	16	6	6		1	28
Cochin-China.....	C	273	45	27	9	6	18	14	6	8		5	8

## PLAGUE

Place	July, 27-Aug. 23, 1930	Aug. 24-Sept. 20, 1930	Sept. 21-Oct. 18, 1930	Week ended—												
				November, 1930			December, 1930			January, 1931						
				1	8	15	22	29	6	13	20	27	3	10	17	24
Algeria:																
Algiers.....	C	7	11	6	5	3	1	2								
	D			3												
Constantine.....	C															
Oran.....	C	4	10	10	1	1	1									
	D		1	3												
Plague-infected rats.....	C		1	6	1	1										
Philippine.....	C		10	6	1	1										
Argentina: Cordoba Province—Chazon.....	C		1	3	1	1										

<sup>1</sup> Figures for cholera in the Philippine Islands are subject to correction.

<sup>2</sup> During the period from Aug. 24 to Sept. 26, 1930, 26 cases of cholera with 17 deaths were reported in Manitum, Surigao Province, P. I.

<sup>3</sup> Reports incomplete.

















**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**TYPHUS FEVER—Continued**

[C indicates cases; D, deaths; P, present]

Place	Week ended—													
	November, 1930			December, 1930			January, 1931							
	Oct. 26, 1930	1	8	15	22	29	6	13	20	27	3	10	17	24
Ireland:														
Irish Free State—														
Galway County—Oughterard.....	2													
Lethrin County—Mohill.....	1													
Mayo County—														
Ballina.....	1													
Castlebar.....		1												
Westport.....	2	1												
Roscommon County—														
Roscommon.....	1													
Stokestown.....	1													
Wicklow County—Shillelagh.....	1													
Latvia (see table below).....														
Lithuania (see table below).....														
Mexico:														
Durango.....			1	2										
Mexico City, including municipalities in Federal District.....	5	9	7	8	1	5	4	1	1	12	1	1		
San Luis Potosi.....		2	2	2	2	3				2	3			
Morocco.....	11	8	2	2	1	1	1	1	1	1	8			
Palestine.....	6	3	3	3	1	2	1	1	6	1	1	2		1
Poland.....	36	34	23	22	7	15	7	12	7	21	9	6	28	11
Portugal: Oporto.....	4	3	1	1	2	1	2	2	3	3	3			
Rumania.....	28	9	1	4	2	1	1	2	2	2	2			
Spain.....	8	2	4	14	4	13	10	14	19	2	2			
Tunisia.....	3	1	1	1	1	1	1	1	1	1	1			
Turkey (see table below).....	1	10	6	12	2	4	4	2	5	1	23			

